Address
ON
MEDICAL SURGERY,
OR THE
RELATIONSHIP OF MODERN SURGERY TO PRACTICAL MEDICINE.

Delivered before the Manchester Medical Society.

BY JAMES HARDIE, F.R.C.S. ENG.,
PRESIDENT.

GENTLEMEN,—Medicine, in the usual acceptation of the word, is that branch of the healing art which deals with disorders of the viscera of the three cavities of the body, and surgery is that which deals with affections of the limbs and the parts of the body external to those cavities. This very crude distinction is not, nowadays at least, literally correct; neither does it attempt to indicate their essential characteristics, nor the real relationships which exist between the two. I fear that it can scarcely be claimed for the art of surgery that it occupies an equal platform to that of medicine, as might be inferred from this definition. Is it not the case that surgery, in reality, apart from its concern with the accidents of life, is but a last resource, after the failure of medicine? Take the surgery of the limbs if you will—the surgical diseases of the limbs. What are they? Are they not the outcome of the failures of medicine? What of strumous joints, of tubercular diseases of the bones? Is it not the case that they are the result of a failure of the art of medicine? They are the outcome of a depraved condition of the body generally, which it is the province of medicine proper to deal with and prevent, as much as it is its duty to foresee and prevent, in the same cases, the formation of tubercle in the lungs. As surgeons, the tubercular constitution meets us at every turn, when it has passed the stage of a mere condition of the blood-forming organs, or whatever else its ultimate pathology may be.

> "Strangely visited people,
> All swollen and ulcerous. Pitiful to the eye,
> The mere despair of surgery."

Or take rickets. Why should the surgeon have his cases of genu valgum, or bent tibiæ, or twisted spine, had medicine been powerful enough to have arrested the disease, while it could only be spoken of as a disorder of nutrition? What, again, of aneurysm? A man comes to us with an aneurysm of his popliteal artery. Who will deny that it was the province of medicine to have prevented that man's arteries from becoming atheromatous, and to have kept his tissues healthy, until he dropped, like an autumn leaf, sere and yellow, into his grave? I will even take the cases of congenital deformities and tumours. I am not now going to discuss the pathology of either the one or the other; but when the time comes when it shall be fully known, I doubt not, and I think we cannot doubt now, that it will be traced to an evident departure, in one generation or another, from the laws which regulate the perfect formation and development of the healthy frame.

I do not know that medicine will ever be greatly successful in *curing* disease. We can cure syphilis; and, if cured sufficiently early, it may do no harm to the organism. Perhaps it is that we can cure hydrophobia; and if so, it may be that we shall be able to cure zymotic fevers. But these are cured by killing them and getting rid of them, as we cure a tape-worm with a dose of filix mas. We may cure a disease which attacks the body by killing it before it has done much or any harm. But medicine, so far as we can tell at present, must concern itself chiefly with prevention. Most men may not go on drinking whisky without serious damage to their liver and kidneys; and this medicine cannot prevent. The antidote cannot be taken in alternate glasses; the whisky must be locked up, or the morbid impulse towards it must be restrained. So with constitutional disease. As some men are born with an organism so constituted that they are the victims of vicious habits, a fact which the physician has to recognise and deal with, so others are born with organisms so constituted that they are prone to, or become the prey of, tubercle, or of rheumatism, or of gout, or of rickets, or of a carcinoma, or of a sarcoma. This it is the business of the physician to detect, and to direct such a man so to live that the exciting cause of the development of any of these things shall not come in his way. Once developed, the *cure* of his disease is another and much more difficult matter; and so it happens that in time the surgeon has to be applied to to relieve him of his deformity, of his stone, or of his tumour.

Surgery, then, in its relationship to medicine consists in dealing with the gross results of diseased processes; and it will be interesting to us now to survey the progress which it has made in helping medicine to deal with such morbid results. For this purpose I shall revert to the old distinction between medicine and surgery, which I discarded at the beginning of my address, and leave out of consideration altogether the surgery of the parts of the body other than the three great cavities, inasmuch as, from the beginning of medicine, these have been claimed by surgery proper, without regard to the pathological cause of the maladies affecting them.

When surgeons began to extend their domain from the orifices of the body, where diseased structures might be seen with the eye or felt with the finger, the operation of lithotomy was that to which their attention was first directed. In the case of a stone in the bladder, the painful character of the symptoms, while urgently calling for relief, at the same time proclaimed, in many cases at least, the nature of the complaint, which was established beyond doubt when the sound was introduced into practice. In this operation, the accessibility of the organ from the surface, without implicating important parts, and the free drainage from the incision, would no doubt make it quite a successful one, even in the days of rude surgery; and if the case turned out to be one of cystitis instead of stone, it is to be supposed that relief may sometimes have been accidentally afforded.

The same considerations of pain and urgency of symptoms, while the diagnosis was also certain, would lead to the Cæsarean section being undertaken *in extremis*. But here the circumstances of the operation were much more grave. The opening of the peritoneal sac alone—a dangerous vortex to be engaged in, to say nothing of the complications entailed by emptying the uterus—renders this an operation demanding all the resources of the surgery of the present day to offer even a slight chance of success, and one can therefore imagine how timorously it would be engaged in. Compare with this the case of a patient suffering from internal intestinal obstruction. Here, again, there are great urgency of symptoms and grave danger. On the other hand, however, besides the dreaded peritoneum, there lay the doubtful diagnosis, and the possibility that, by waiting, the symptoms might pass off and recovery take place. Thus, while urgency of symptoms and danger to life might impel the surgeon to undertake an operation on the abdominal cavity, yet the grave results to be apprehended from opening the peritoneum barred the way, and the operation could only be justified, in the minds of most, by certainty of diagnosis. This impotence of surgery in dealing with the peritoneum undoubtedly reacted unfavourably on medicine, in so far that it afforded no encouragement to refinement of diagnosis. The operation of ovariotomy did much to deprive the peritoneum of its terrors. The nature of ovarian disease began to be studied, and through the work of Clay in our own town, more than by anyone else, it began to be the recognised duty of the surgeons to attempt to give relief. Thus, something began to be known of the causes which induce peritonitis, and of the methods of preventing it. Much information was gained, and the way paved for the further developments which have occurred under our own eyes. In the case of the colon and kidneys, abdominal organs which might be reached from behind without opening the peritoneum, their depth from the surface, and the danger of infiltration of pus in the surrounding cellular tissue, were considerations almost as repellent as the danger of peritonitis by the abdominal incision.

As regards the thoracic cavity, up to a few years ago nothing surgical was attempted beyond tapping the pleura, or, it might be, in the case of an enterprising physician, the pericardium. The eminently satisfactory result of the

former at least of these operations when the fluid was simply serous, was sufficiently evident—a literal carrying out of the figurative language of Shakespeare:

> "Canst thou not .....
> Cleanse the stuffed bosom of that perilous stuff
> Which bears upon the heart?"

In the case of purulent effusion, however, surgery remained for long blind and halt, so that in such a case recovery was due rather to happy accident than to an intelligent perception of the difficulties to be overcome and the method by which this was to be accomplished.

Of surgical assistance in disease within the cranial cavity up to the last two or three years the record is almost a blank. On their own account, indeed, as in the case of fractures of the vault, surgeons had been accustomed to deal with injuries to the brain; but with the single exception of tapping the fontanelles in chronic hydrocephalus, I can recall no operation by which an attempt was made to render service to medicine.

And so, sometimes by improved means of diagnosis, sometimes by greater surgical skill, we might have gone creeping on along the fringe of medicine proper, when nineteen years ago Lister, for the first time in the world's history, by applying to surgery the masterly researches of Pasteur on the phenomena of fermentation and putrefaction, enabled us to understand how the various disasters which barred the progress of surgery occur, and some years earlier Chassaignac introduced his drainage-tubes into practice. The peritoneum is opened now without Listerian details, and with marvellous success. Why not before the time of Lister? I am not concerned to uphold the *manner* of Lister's work, but this I do hold, that it was Lister who first taught us that it was by the injurious action of ordinary air on dead organic matter that the host of calamities which hovered around the path of the surgeon was to be accounted for. We thus know the vast importance of the utmost cleanliness in opening a serous sac, and of the protection of it from the entry of foreign material. Thus was Marion Sims able, in 1877, to cut down on the gall-bladder, and by carefully stitching the edges of the incision into it to the wound in the abdominal wall, to prevent the escape of foreign material into the peritoneal sac. This was the first of a large and important series of operative proceedings on the abdominal cavity; and although his patient died, yet to Sims undoubtedly belongs the merit of having shown how to deal, not alone with such cases, but with the similar ones of hydatids of the liver, adherent cysts, chronic abscesses, and so on. But what if foreign or dead material does enter, in spite of our precautions? We may prevent, in ordinary circumstances, the contents of an ovarian sac, or of a gall-bladder, or of an abscess from gaining access to it, but we cannot always prevent the access of blood. It is only now that we are beginning to assess at its true value the invention of Chassaignac. The advantage of draining the peritoneal sac when blood or serum happened to collect in the pelvis was fully demonstrated by Keith, who, if the temperature began to rise in his ovariotomies, boldly incised the pouch of peritoneum forming Douglas's space, with the result of withdrawing a quantity of bloody serum and the immediate amelioration of the condition of his patients. Nowadays, when any fear whatever exists, in these or other operations, of blood collecting in the pelvis, the precaution of inserting a glass tube, on the table, is invariably followed.

Thus, then, the dread of wounding the peritoneum, so long the bugbear of abdominal surgery, has been disposed of, and surgeons are ready, awaiting the summons of the physician. The art of diagnosis has thus been wonderfully quickened, so that diseases which at one time were scarcely ever heard of have become matters of every-day occurrence. The brilliantly successful career of Mr. Tait, in the field of abdominal surgery, must be present in the minds of most of my hearers. His operative successes on the ovaries, on the Fallopian tubes, on the liver, and other parts, show most strikingly the extraordinary advances which surgery has made in this region during the last few years. The kidney and ureters have shared with the other viscera in the general advance. It is no longer necessary for a stone to have reached the bladder before it may come within the reach of the surgeons art. I well remember—it may be some thirteen or fourteen years ago—a remark made by our distinguished member, Sir William Roberts, at a meeting of this Society, on a case in which a small calculus was shown lying at the orifice of one of the ureters. The small accident of impaction had cost the patient his life, and Sir William was acute enough to remark that he thought that, had such a condition been diagnosed, it would have been quite possible for a surgeon to have cut down on the stone, and either to have extracted it or pushed it into the bladder. It is pleasant to recall this incident, for it impressed itself on my mind as a shrewd remark, and it foreshadowed what we are fain to do now. It is scarcely within the scope of my purpose at present to enter into details concerning the operative surgery of the kidney. Nephrotomy and nephrectomy are operations firmly established, and it may be said regarding them that operative surgery has overtaken and is in advance of diagnosis. I fear the happy time has not yet come when the physician shall no longer consider that he has any more to do with the kidney than with the bladder; and therefore we want him to tell us, more precisely than he frequently does, what it is that is the matter. Has the patient two kidneys or only one? Is it an impacted calculus or an abscess? A cyst, or nothing at all?

What of acute intestinal obstruction? To my mind this is still one of the least satisfactory of the medical affections of the abdomen which the surgeon has to deal with. We are called to a patient with a belly swollen and tympanitic; we get a confused history, and are left to grope about as best we can. Nothing comes of it. We know not whether it is a case of ileus, of intussusception, or of strangulation. We perform an operation, and the patient too often dies unrelieved. In this condition there is still much to be done and perfected by the physician in the direction of diagnosis.

The various operations for the amelioration of symptoms in incurable stenosis of the œsophagus and pylorus, gastrostomy, duodenostomy, and gastro-enterostomy, have been attended with a gratifying amount of success. The relief from pain and impending starvation has frequently been so marked that it would be unjustifiable to deny it to a suffering patient, though a respite only from the advance of disease be obtained. This much may, I think, already be affirmed for cases which are at all favourable, though the varying details of operation, as required by the varying conditions to be met with, are points which are still *sub judice*. So, too, let us bear in mind the possibility of digital divulsion of non-malignant stricture of the pylorus and of excision of gastric ulcer.

As regards more grave operative procedures within the abdomen, such as those for removal of malignant disease affecting the pylorus (of which our secretary, Mr. Southam, has recorded a striking case), the duodenum, or other parts of the intestinal canal, the excision of the spleen or of portions of the pancreas, I shall say little. At present I fear we can scarcely regard them as more than bold attempts, with the advantages of modern surgery, to rescue the sufferers from impending death; and when one bears in mind how soon the lymphatic glands become implicated in the case of cancerous disease, I feel that, in that case at least, it is very questionable whether it will ever be worth anyone's while to undergo the immediate risks of such severe operations, with so little assurance of positive future benefit, until we know much more than we do at present of the nature of cancer.

Turning now to the surgery of the thoracic cavity, we find that it is to the use of the drainage-tube more than to anything else that the advances of the past few years are due. Given a case of empyema of recent formation, its complete cure by means of antiseptic drainage is within the power of anyone only moderately skilled in surgical procedures. The lung, being relieved from the pressure of the pent-up fluid, gradually expands and assists in the obliteration of the abscess cavity. But in older cases, in which the expansion of the lung is more or less prevented by thickening of the pleura or the formation of bands of organised lymph, there is a physical difficulty to such a process, and many a one has remained on our hands in a condition of half cure, with a sinus leading into a large suppurating cavity which we were powerless to close. To Estlander belongs the merit of showing how such a state of matters is to be dealt with, and there can be no doubt that his ingenious device of removing portions of the ribs to allow of the otherwise rigid thoracic wall falling in to meet the bound-down lung is a notable addition to the art of surgery. Tapping and drainage of fetid cavities in the lung, and the excision of broken-down and harmful portions of the lung itself, are also operations of which the feasibility has several times been demonstrated.

Much interest has lately been gathered round the medical surgery of the cranial cavity. Gravely to propose to excise

a tumour of the brain would, only a few years ago, have been received with a smile. But we have got beyond this now. Tumours of the brain have been excised, and will be excised again. We are now endeavouring to find out how far we may safely go in this direction. The *sine qud non*, in operating on the brain, is of course accurate previous localisation of the lesion, and this the advance of neurological science within the last few years has rendered a comparatively easy task. A careful consideration of the nervous phenomena of the case now enables the expert in neurology to determine with the greatest exactitude both the situation and the probable character of a brain lesion. As regards the former, it can scarcely be anticipated that the boldest surgeon will ever venture beyond the accessible parts of the cortex, but with this limitation enough has already been done to show that brain surgery is destined to occupy an important and legitimate position in the future. It may not yet be possible to predicate, in every case, whether the lesion be situated primarily within the brain substance or on its envelope, nor whether it be inflammatory in character or a neoplasm. I venture to think, however, that the gravity of any case, from a surgical point of view, will depend mostly on the answer which may be given to the former of these two considerations. The latter is probably of less importance, apart from the general question of the comparative curability of inflammatory and neoplastic deposits. Obviously it will be less dangerous to remove an inflammatory thickening of the dura mater or a tumour growing upon it, which simply lies upon, and perhaps has induced some absorption of, the brain substance, than to incise the latter and remove a deposit embedded in its substance. A considerable number of successful cases of the former class of operation have already been recorded, notably by Dr. Macewen, of Glasgow. Of the latter, the original case of Dr. Bennett and Mr. Godlee is the best known, and although unfortunately terminating in death, yet its satisfactory progress for a considerable time showed that the fatal event was due to accidental and preventable causes rather than to anything necessarily inherent to the nature of the case. At the same time, I think I shall be borne out by every surgeon of experience when I say that, while in no department of surgery is a failure of strict antiseptics more likely to be disastrous than when brain matter is exposed, in none is it more difficult to conduct a case through the many pitfalls to which we are exposed to a satisfactory termination. Hence the vast importance of a speedy closure of the wound, which is precisely what cannot be attained in such cases, inasmuch as the cavity resulting from the operation has to fill up by the secondary process of healing.

In connexion with cerebral surgery, I may also allude to the suggestion of Dr. Alexander, of Liverpool, to treat certain cases of epilepsy by ligature of the vertebral arteries. Although his later experience has not quite supported his earlier, yet the proposal, and the partial success which has attended it, afford ground for believing that by surgical means it may be possible to influence materially morbid conditions of the central organ of the nervous system. The employment of nerve-stretching, also, in various forms of peripheral neuroses, is now an established and satisfactory operation, of which you have seen several examples at our meetings.

In thus hastily and imperfectly reviewing the relationship of the surgery of the last few years, considerably fewer than those during which I have been a member of this Society, one cannot but feel that its progress has indeed been a triumphant one. The whole course of the alimentary canal has come within its province, the blood-forming, the secretory, and excretory glands have, every one of them, become the prey of the surgeon's knife. So, to a considerable extent, has the entire circulatory apparatus, and even the seat of the intellect itself. To speculate as to where this will end were vain; for even now the art of surgery is not limited to the mere lopping off and casting away of these failures of the art of medicine. Its influence on the economy is manifest. Can we not cure epilepsy by trephining the skull, and thereby modify the whole future mental state of our patient? Can we not prevent or cure amyloid degeneration by cutting off a suppurating joint, and thereby profoundly alter the whole subsequent nutrition of that child? Can we not prevent the occurrence of the cancerous cachexia and irretrievable ruin by the timely removal of an epithelioma? Can we not believe that in the near future we shall be able to prevent the malignant cachexia of lymphadenosis? Who shall deny that it may be surgery, and not medicine, which shall first show how the development of cancer or of lymphadenosis is to be prevented? May not the spleen be prevented from spoiling the whole mass of blood by a ligature being placed around the splenic artery? Who knows how the congenital predisposition to rheumatism or to gout may not be artificially prevented from declaring itself, and thereby bringing in its train the multitude of secondary ills which its subjects are liable to? How shall "dyspepsia" be treated in the next century? By digesting our food in our stomachs as we do in a test tube, or by a surgical operation on the pancreas? Speculative problems these; but we cannot tell how closely surgery may yet walk hand in hand with medicine and be concerned in the control of the very acts of assimilation and tissue formation.

PRACTICAL REMARKS ON EXTRACTION OF CATARACT.[1]

BY ANDERSON CRITCHETT, M.A. CANTAB.,
OPHTHALMIC SURGEON TO, AND LECTURER ON OPHTHALMIC SURGERY AT, ST. MARY'S HOSPITAL.

I BELIEVE that I am not overstating the case when I affirm that before the introduction of cocaine the majority of English ophthalmic surgeons were in the habit of administering an anæsthetic during the operation for extraction of cataract, unless they were able to assure themselves that they had the good fortune to deal with a calm, stoical, and non-spasmodic patient. The advent of the new local anæsthetic has in a great measure broken down our barrier of distrust, and by its aid we are now able to operate successfully on even the most nervous and sensitive of sufferers. But whilst we gratefully recognise the absence of pain which is secured by this valuable agent, we have become aware of certain inconveniencies which, unless duly guarded against, may seriously embarrass an inexperienced operator, and chief amongst these is the partial loss of control over the eyelids which follows on instillation of cocaine, so that the removal of the speculum either after or during an operation for cataract must be accomplished with great care, otherwise a violent spasmodic closure of the lids may produce disastrous results. I can also assure my professional brethren, from personal experience, for I have on more than one occasion kept a speculum in my eye for some minutes, that the forcible separation of the lids by our familiar wire coadjutor produces an almost uncontrollable tendency to squeeze them violently together, and there can be no doubt that the wings of the speculum afford a powerful leverage for the strong spasmodic effort which has so often ruptured a delicate hyaloid membrane and wrecked an otherwise promising operation.

I have therefore adopted a very simple method, which enables me to banish the speculum from all operations for cataract that are performed with cocaine. The chief desideratum is a well-trained and flexible ring-finger. That this digit is too often feeble and not properly under control, is a fact well recognised by pianists and other instrumental executants, and the special exercises that have been devised for its education might also be practised with advantage by ophthalmic surgeons. My plan of operating is as follows:—The eye is steadied with forceps held between the thumb and the two first fingers, whilst the ring-finger is used to elevate the upper lid to such an extent as will enable the operator to make the necessary section. The sensitive natural speculum possesses this great advantage—that it can recognise the commencement of a spasmodic effort on the part of the patient and at once give the necessary relaxation, and as the section is nearing its completion the gradual withdrawal of the finger allows the lids to close gently and without effort. If an iridectomy is to be made, the upper lid should be lightly raised at its edge, with the ring-finger of the left hand, whilst the iris is seized with suitable forceps held between the thumb and the first two fingers. It will thus be seen that the operator is able to dispense with the aid both of speculum and assistant. The above plan is so simple and, with a little practice, so easy of accomplishment, that it may very possibly have been already

[1] Read at the annual meeting of the Société Française d'Ophthalmologie, Paris, April 29th, 1886.

adopted; but as I have seen no mention of it, and as I have already operated by it successfully in a considerable number of cases both in private and at St. Mary's Hospital, I think it right to put my experiences on record. The cases where this method is most difficult of application are those in which the eyes are small and deeply seated, but a little extra patience and care on the part of the operator will surmount these obstacles; and, on the other hand, it is specially suitable for prominent eyes, where the use of the speculum has so often proved hazardous. The knife with which I operate differs somewhat in shape from Graefe's original pattern. It will be seen from Fig. 1 that the blade begins to broaden rapidly immediately below the point, which is central; the back of the knife is bevelled and the blade is rounded, so that in this respect it resembles the

FIG. 1.

Beer's knife, and does not permit a too rapid escape of aqueous. My knife is broader than those in general use; indeed, I understand that several of our foremost operators, both here and on the Continent, now prefer an extremely narrow blade. I have tried every variety of pattern, and have finally decided in favour of that which I have above described, because I find that it facilitates the accomplishment of a smooth and rapid section, and that the iris is less liable to fall in front of the edge of the knife than is the case with more attenuated blades. In making my section, I seize the subconjunctival tissue with forceps just below the spot where I intend to make my counter-puncture. I by no means follow the direction given in some of the text-books to make the puncture and counter-puncture exactly at the same level, because the adoption of that method

FIG. 2.

necessitates the immediate commencement of a sawing movement, which drags upon the globe, and must of necessity leave an objectionable serrated edge to the flap. I am careful to introduce my knife at a lower level than that at which the counter-puncture is to be made (*vide* Fig. 2). The moment that the point emerges, an upward and onward sliding movement imparted to the knife will enable three-fourths of the section to be smoothly completed before any backward motion need be employed, and the least possible amount of violence is thus done to the internal economy of the eye. After the capsule is ruptured, I gently depress the upper edge of the section to prevent it from impeding the exit of the cataract, and if the latter should refuse to quit its home after the exhibition of moderate pressure, I am frequently able to rotate it out by applying a curette to the margin of its under surface. These and other equally useful manœuvres are doubtless well known to all experienced ophthalmic surgeons, but I venture to hope that a trial will be made of the plan I have described, in which, in suitable cases, nature's speculum takes the place of that which we have hitherto used.

ON A NEW METHOD OF ESTIMATING THE CONDITION OF THE RIGHT SIDE OF THE HEART.

BY W. PASTEUR, M.D. LOND., M.R.C.P.,
PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN, AND MEDICAL REGISTRAR TO THE MIDDLESEX HOSPITAL.

IN September, 1885, I called attention in the columns of THE LANCET to a distension of the superficial veins of the neck which occurs when, under certain circumstances, pressure is exerted over the liver. I have since then had the opportunity of examining a large number of patients presenting both positive and negative instances of this phenomenon, with results of sufficient interest to be worth recording. The physical sign in question is a distension or over-filling of the external jugular veins, apparently from below, with or without pulsation or undulation, which takes place when pressure is exerted in the right hypochondriac or epigastric regions with the flat of the hand, the direction of pressure being backwards and upwards. Before proceeding to make the examination the patient should be placed in the recumbent posture, with the neck slightly extended and the head turned a little to one side, while care is taken that the muscles of the neck are not in a state of tension. The sign is usually best marked on the right side, but may in almost every case be demonstrated on the left side also. It is essential that the movements of respiration should be normally maintained throughout the examination. I have frequently observed a partial filling-in of the supra-clavicular fossa at the moment when pressure is first exerted. This is especially marked in thin subjects, and may be accounted for to some extent, perhaps, by simple mechanical displacement, but is, I believe, chiefly due to an involuntary arrest or modification of breathing, and almost invariably subsides in a few moments. The amount of pressure required varies in different individuals. In rare cases rigidity of the abdominal muscles renders the manœuvre quite impossible. The presence of moderate ascites is no impediment, but excessive distension of the abdomen with fluid or gas renders the necessary manipulation more difficult and sometimes impossible. The pressure should be exercised gradually and steadily, otherwise an attack of coughing is liable to be induced, particularly in cases of bronchitis. The patients rarely complain of any pain or even discomfort, but on the occurrence of the least pain the manipulation should be at once discontinued. The following case affords a good illustration of the phenomenon.

L. W——, aged thirty, was admitted into the Middlesex Hospital in October, 1885, suffering from intense dyspnœa. The face was cyanosed, the lips very blue, and the breathing very rapid and shallow. There was moderate distension of the external jugular veins, which pulsated distinctly and filled from below. Over the heart's apex there was a short systolic bruit, with a line if conduction towards the axilla. The heart dulness was increased towards the right; the liver was not enlarged. Pressure exerted in the right hypochondriac and epigastric regions immediately produced a very marked alteration in the jugular veins. They became very visibly distended, the pulsation at the same time becoming less obvious, and shifting to a spot higher up the vein. This alteration in the condition of the veins persisted as long as the pressure was maintained, but on removing the hand these at once returned to their former state. The patient was treated with full doses of digitalis. On the third day there was a marked improvement in her general condition. The breathing had become natural and all trace of venous pulsation and distension had disappeared. Firm pressure applied as before was now entirely without effect on the veins. Once or twice a scarcely perceptible filling of them below the valves was observed, which was probably due to a slight modification in the breathing.

With a single exception, to which I shall refer again, this

phenomenon has invariably been met with in cases which showed evidence of great over-distension or failing compensation in the right heart. I believe it to be invariably present in well-marked tricuspid incompetence, whether functional or due to disease of the valves. Of this I have had post-mortem confirmation in at least four cases. But besides these there are a considerable number of cases which ultimately recover, in which the sign is present with varying intensity at one period or other of the illness. Such are instances of mitral valvular disease, whether regurgitant or stenotic, and of chronic pulmonary emphysema, complicated with acute or severe general bronchitis. The question naturally arises, whether the distension in these latter cases (emphysema, &c.) should be regarded as evidence of slight tricuspid incompetence or simply of great over-distension of the right heart falling short of failure of the tricuspid valve. It is to be noted that these are precisely the cases in which the question of tricuspid incompetence has to be considered from a prognostic point of view, and is often left undecided. Venous pulsation is generally absent, and often the cervical veins are but slightly distended. Not infrequently there is undulation at the spot where the distension of the vein ceases. This may be systolic only, or double, and synchronous with the heart beats. (I have hitherto failed to observe the quadruple undulations described by Guttmann.) The valves in the external jugular veins are usually competent, and the veins empty completely with each inspiration. The effect of pressure below the ribs varies in these cases with the amount of obstruction to the venous return. 1. In the least marked cases, the vein, although not perceptibly distending under the pressure, is seen, nevertheless, not to empty completely during inspiration. 2. In others a degree more severe, a moderate distension results; the vein becomes visible as far as the anterior border of the sterno-mastoid muscle, more rarely as high as the angle of the jaw. At the same time the spot where undulation was visible becomes shifted higher up the vein, and the character of the undulation is not infrequently modified, the double variety being replaced by a single systolic flicker, the single variety occasionally disappearing altogether. 3. In cases yet more severe, but in which the usual signs of tricuspid regurgitation are not developed, the pressure sign is often elicited with great distinctness, with or without undulation, and is, I think, here to be regarded as indicating early tricuspid failure. In the second class of cases, which differs from the third in degree only, I am inclined to think that there is great over-distension of the right heart, falling short, however, of regurgitation, possibly with excessive strain on the valve cusps.

The exception above mentioned occurred in a man who had a large empyema on the left side, with considerable displacement of the heart to the right. In this patient the sign was fairly well marked for a considerable time, but ultimately disappeared when he recovered, his heart having then returned to its normal position. I have entirely failed to obtain it in other cases of pleural effusion. The following case illustrates the information which may be conveyed by the absence of this sign.

H. W——, about fifty years of age, was admitted into the Middlesex Hospital in December, 1885, presenting the signs and symptoms of severe bronchitis and emphysema. The external jugular veins were distended, filling rapidly from below, but not pulsating visibly. Examination of the chest revealed nothing beyond marked emphysema and somewhat increased resistance, without dulness, over the upper two right interspaces near the sternum. There was slight bronchitis of the larger tubes. Beyond that mentioned there was no clear evidence of obstruction of veins within the thorax. Firm pressure below the ribs produced no change whatever in the external jugular veins. Relying on this evidence of the absence of tricuspid regurgitation, a diagnosis was hazarded of intra-thoracic growth obstructing the superior vena cava, which was completely verified at the post-mortem examination.

The mechanism of the production of this phenomenon is probably complex. Without presuming to offer a complete explanation, I would suggest that the following factors probably enter into it: 1. Compression of the inferior vena cava by the liver, especially in cases where this organ is enlarged. In my original communication considerable importance was attached to the *rôle* played by the enlarged liver in these cases. I am satisfied from observations in the post-mortem room that a certain amount of compression from this cause is possible. But looking at the nature of the cases in which this sign is met with, and in the face of the repeated observation that enlargement of the liver is not a *sine quâ non*, I am disposed to consider the conjunction casual rather than causal. This factor, however, probably acquires more importance in cases of tricuspid regurgitation, with pulsating liver. 2. Lessening of the inspiratory action of the thorax through interference with the movements of the diaphragm. This I believe to be a more important factor. It may be urged against it that, if true, pressure below the ribs should produce the same effect in healthy individuals. But I think it may fairly be argued that, whereas in health the heart and lungs may, and do almost immediately, adapt themselves to slight modifications of pressure, &c., within the thorax, it does not follow that in disease they possess the same capacity. 3. Direct mechanical interference with the proper movements of the right side of the heart. A glance at the anatomical relations of the right auricle and ventricle to the diaphragm and subjacent liver will suggest the possibility, not to say probability, of such interference.

There can be little doubt that the effect of subcostal pressure, whatever the mechanism of its action, is to put increased difficulties in the way of the proper action of the right side of the heart, so that the pressure sign in cases where the tricuspid value is considered to be still competent is to be looked upon as a measure of the capacity still possessed by the right heart to combat increased resistance. In cases where the tricuspid valve is incompetent, the effect of the pressure is to aggravate the conditions under which the heart is already unable to do its work, with a proportionate increase in the signs of that inability. I venture to think therefore that this subcostal pressure sign possesses undoubted value as a means of diagnosis, and may also afford valuable information as to the progress and ultimate prognosis of many cases in which we are now reduced to mere conjecture for want of some definite, tangible index of the condition and working power of the right side of the heart.

Queen-street, Mayfair, W.

ON THE NATURE OF WHOOPING-COUGH

WITH A DESCRIPTION OF A NEW MODE OF TREATMENT INTRODUCED BY PROFESSOR MONCORVO, OF RIO DE JANEIRO, AND ITS PRACTICAL RESULTS.

By WILLIAM H. BARLOW, M.D.,

CONSULTING PHYSICIAN TO THE DISPENSARY, GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, MANCHESTER AND PENDLEBURY.

(*Continued from p. 871.*)

So much for the irritation and its seat; but what is the cause of that irritation? We all know the extreme sensitiveness of the parts about the entrance to the larynx, and a local irritant in that position being once granted, we have little difficulty in foretelling the train of symptoms that would be produced. But what is the local irritant, and how is it that the irritation is manifested in spasmodic paroxysms with intervals of repose? We shall endeavour to reply to these questions. We find the first trace of an idea that the cause of irritation might be parasitic, in a theory that it was due to the inhalation of the very minute eggs of some species of insect; but it was Rosen de Rosenstein[1] who, after studying with care the epidemics of this disease in Stockholm in 1743 and 1764, remarked that it only affects those who have never previously contracted it, and that it is not subject to return. He continues (I translate the substance): "One sees by this statement that the cause of the disease is the existence of a foreign matter or an injurious principle, which increases and propagates itself, like that of small-pox, among those who have not yet been attacked." He doubts whether we should attribute that cause to insects, but is quite sure that "the morbific principle insinuates itself partly into the chest by respiration and partly into the stomach, where the nerves are very numerous." Remarking that the irritation develops itself periodically with intervals of perfect repose, he goes on to say that "during that time the secretions accumulate, and, becoming abundant, provoke a new access, which, in its turn, terminates by the expulsion

[1] Dissertatio de Tussi (1749); and Traité des Mal. des Enf., trad. du Suédois par Le Febvre de Villebrune (Paris, 1778), p. 323.

of the agglomerated mucosities. The nature of the disease," says he, "at this period shows that we ought to destroy the principle in the place where it is seated; and it would be easy to destroy that principle if we knew of an appropriate specific." I have already alluded to the practice of Dr. Watson of Glasgow (see note 24), who applied to the interior of the larynx a solution of nitrate of silver, with, as Dr. West bears witness, sometimes very beneficial effects.

In the year 1867, Poulet,[2] in a communication to the Academy of Sciences of Paris, describes the result of certain researches into the organisms to be found in the respiration of children affected with whooping-cough. "The vapours of the respiration of the little patients," says he, "collected by the method described in my previous memoir, present on microscopic examination a real world of infusoria, in every case identical. The most numerous, which are also the smallest, may be referred to a species described by some under the name of 'monastermo,' and by others under that of 'bacterium termo.' Others, in very small numbers, move here and there on the field of the instrument. They have a rod-like (*bacillaire*) slightly spindle shape; their length is two or three hundredths of a millimetre; their width is scarcely half a hundredth of a millimetre. This is the species that Müller calls 'monaspunctum,' Ehremberg 'bodopunctum,' and that micrographists place among the bacteria, bacterium bacillus. Thus the whooping-cough, by these alterations of the expired air, takes a place in the class of infectious diseases, among which I have already studied, from the same point of view, small-pox, scarlatina, and typhoid fever." In 1870 our own fellow-citizen and honoured *confrère*, Dr. (now Professor) Arthur Ransome, brought before the Literary and Philosophical Society of Manchester a number of original researches upon the "Organic Matter in the Human Breath in Health and Disease,"[3] and "found in a case of measles and one of whooping-cough abundant specimens of a small round-celled conferva, like the penicillium glaucum." These results have also been confirmed, as regards measles, by Braidwood and Vacher. It is, however, since the publication in 1873 of the researches of Letzerich[4] that a clearer pathology has been developed. When we examine the sputum ejected after a typical spasm of whooping-cough, we find it to consist of two distinct parts: a clear, transparent, or semi-transparent glairy mucus, entangling roundish whitish-yellow spots, varying from the size of a millet-seed to that of a lentil. When these spots are submitted to microscopic inspection, they, says this eminent observer, are found to be composed of micrococci disposed in chains. Having submitted certain of these to culture, he found that at the end of five or six days the bacteria increased in volume, and became transformed into vesicles, holding in their interior a large number of spores. "These vesicles finally break up and set at liberty the spores, which afterwards become transformed into bacteria. The culture having been made in solution of starch or of sugar, there is seen the appearance of a mycelium, on which the spores attain their complete maturity. These last were round and of a dark colour." This observer introduced these spores into the trachea of different animals, who were each attacked at the end of a few days with laryngo-tracheal catarrh, and afterwards with spasmodic attacks of cough, with lassitude and want of appetite. On post-mortem examination, the writer found the same spores in the mucus of the larynx, the bronchi, and the pulmonary vesicles (*des alvéoles pulmonaires*). These studies of Letzerich aroused the attention of Dr. Henke,[5] who found by an extended examination of the sputa of children affected with whooping-cough that there were always present rounded cellules of from ten to twenty thousandths of a millimetre in diameter, with numerous nuclei and many spores endowed with the power of extensive movement. In simple bronchitis he could never discover any cryptogams such as those always found in whooping-cough, and he consequently considers them as the true cause of the disease. He observed also that the simple addition of a few drops of a solution of quinine to the preparation under the microscope caused the cessation of all movement among the spores. Tschamer de Gratz,[6] having never in numerous examinations found (except, in very rare cases, certain micrococci and bacteria, also observed in a state of health, and especially in the morning expectorations) anything comparable to these in cases of bronchitis, bronchiectasy, and pulmonary tubercle, set himself to examine the expectoration of a large number of children with whooping-cough, and he established the fact of the naked eye characteristics which I have before described. Further, he observed one or two days before the spasmodic or convulsive period, besides epithelial cells and a mycelium reticulated with polygonal meshes, round or ovoid spores, without colour, and variable in number and size. A little later these spores were found to be still further developed, for the most part round, and of a yellowish or even dark-red colour. He also cultivated these organisms in various ways, and introduced them into the tracheæ of hares, with results identical with those of Letzerich. He also found that these corpuscles were analogous to, if not identical with, those that are found in the depressions in the rinds of oranges and citrons in a state of putrefaction, in the form of a black velvety deposit. Carrying his researches to a further point than Letzerich, he abstained for fifteen days from seeing patients with whooping-cough, and carefully examined with the microscope the expectorations which he expelled, without ever finding anything analogous to what we have just described; and at the end of that time he began to inhale the black velvety matter found on the cortex of oranges, previously pulverised. On the *fourth day* he felt a pricking in the larynx which compelled him to cough, and *ten days later* the cough presented all the characters of whooping-cough. At the commencement of the fourteenth day he recognised the spores under the microscope, and the number from that time increased. Similar results also were observed in the case of another person who submitted himself to the same experiments. From these results this writer arrives at the conclusion that whooping-cough owes its origin to the presence of, and the irritation produced by, a cryptogamic parasite upon the mucous membrane of the larynx. The period of incubation he states to be the time necessary for the development and proliferation of those germs, and also to vary with the quantity introduced into the respiratory passages. From the irritation and inflammation caused by their presence on the laryngeal mucous membrane result the primordial phenomena, which precede the period of convulsive cough. He explains the periodicity of the attacks by the necessity that must exist for the effects of the irritation to accumulate before it can produce that reflex action. When the germs are in small number, the constant and abundant expectoration may carry away these cryptogams in numbers exceeding those of their formation, and thus may account for those cases of spontaneous cure which are not unfrequently seen in whooping-cough.

These conclusions, it is but fair to say, have been denied by Professor Rossbach, of Würtzburg,[7] who states that laryngoscopic examination has always shown to him the pharynx, the larynx, and the upper part of the trachea perfectly sound, and without any trace of inflammation. He acknowledges the presence in the broncho-laryngeal secretions of spores and of mycelium, but he says identical with what one observes in ordinary catarrh. But these negative conclusions have not been confirmed by other observers; thus, Meyer Hüm,[8] who made numerous examinations with the laryngoscope in cases of whooping-cough, has always seen inflammation of the pharyngo-laryngeal mucous membrane. Oltramare, of Geneva,[9] comes to the same conclusions as Tschamer as the result of his independent researches. Among many others also, the commentators on the work of the late Professor Steiner, of Prague, have shown themselves fully in accord with the results of the researches of Letzerich and Tschamer. Lastly, Dr. Burger, of Bonn,[10] has supported by new facts the parasitic doctrine of whooping-cough. This author describes a bacillus which he has found in the expectorations of this disease in considerable numbers, and which may be observed with an enlargement of ½ Zeiss. So examined, they are seen under the form of little rods (*bâtonnets*) of variable dimensions, the smallest of them being twice as long as they are wide. When examined by the aid of the apparatus of Abbé, we may easily see that the longest of them present a central constriction, making them resemble somewhat the form of an hour-glass. They were

[2] Comptes-rendus de l'Acad. des Sciences, 1867.
[3] Memoirs of the Lit. and Phil. Soc. Manchr., vol. iv., session 1869-70.
[4] Ueber Lungen-mycose beim Keuchhusten, nebst Angabe einer Methode zur Heilung der Letztern. Virchow's Arch., 1873, tom. lvii.
[5] Deutsches Archiv für Klin. Med., Bd. xii., 1874.
[6] Jahrbuch für Kinderheilk., Bd. x., H. 4, 1870; Schmidt's Jahrbuch, n. l., 1874.
[7] Zur Lehre von Keuchhusten. Berlin Klin. Woch. 1880.
[8] Westererbeitrage zur Pathologie und Therapie der Keuchhustens. Zeit. für Klin. Med., Bd. i., p. 461.
[9] Progrès Médical. Paris, 1881.
[10] Berliner Klin. Wochenschrift, 1883.

disposed sometimes in chains, sometimes at regular intervals, and again in the form of irregular masses. Coloured with aniline, they showed themselves with remarkable distinctness. They should not, according to the writer, be confounded with the Leptotrix-buccalis, since the spores of the latter, besides their larger size, are accompanied by filaments peculiar to them. From these facts Burger deduces a bond of connexion between these germs and whooping-cough—"first, because one never meets them in any other kind of expectoration; secondly, because they exist in such considerable amount that one cannot doubt their morbific action; thirdly, from the relation that exists between the abundance of the spores and the intensity of the disease."

At this point the inquiry was taken up by Professor Moncorvo, of the Polyclinique, Rio de Janeiro. This gentleman, aided by Professor Silva Araujo, of the same institution, made many microscopic examinations of the matters expectorated, sometimes in the catarrhal and sometimes in the spasmodic stage of whooping-cough; not only in those who had never been treated medicinally, but also in those under treatment and in progress of cure. "In the expectoration rejected immediately before the examination," says this writer,[11] "we discovered a great quantity of little yellowish masses, irregularly rounded, of a size about that of a pin's head, immersed in mucus. These are found in greatest abundance in the expectoration of those children in whom the disease has attained an advanced period of spasmodic cough. When submitted to microscopic examination, without the addition of any reagent or of any colouring matter, we have observed what we are about to describe as the *résumé* of different examinations. We have found pavement epithelial cells, polyhedric, irregular, and provided with a nucleus, globules of pus, more or less numerous small globules (globulins), and a considerable quantity of micrococci; all these elements were immersed in an amorphous matter, strongly glutinous, which constitutes the gangue of that magma. The epithelium cells show themselves under different sizes and diverse forms, and were all provided with a nucleus, and were of a double contour. What we saw of the greatest interest was the infiltration with spores, infinitely small and brilliant, of veritable micrococci, which existed in profusion in the interior of the cells, always keeping the same disposition as in the amorphous substance which surrounded them—that is to say, the disposition in linear series, in chains or chaplets, or in groups, which vary from two, three, four, or more; or, finally, they were isolated and distinct one from another, although close together, on account of their considerable number. That profusion, so that the chains formed by the micrococci crossed each other in different directions under the field of the microscope, became much more marked when the preparation was coloured with picro-carmine or violet of methyl. In all the rest of the preparation the micrococci showed themselves in extraordinary abundance, forming in different points true zoogloea or groups of spores agglomerated by an amorphous unitive matter. The globules of pus were equally filled and infiltrated with micrococci. This element, which predominated in considerable quantity in preparations made with expectoration ejected during the convulsive period of the cough, diminished and became less abundant in those made with the products of expectoration during the latter stages of the disease, principally at an epoch near to that of the favourable termination. They were also in very small numbers in the examinations practised in the catarrhal stage. At the same sitting we have been able to observe the relative proportion between these elements at two different periods of the cough, by examining one after the other the matters expectorated by two children affected with whooping-cough, dating in one case from eight days, and in the other from twenty days. Those of the first, in which the spasmodic phenomena were still vague, contained a number much inferior when compared with that in the second preparation, in which the epithelium cells were extraordinarily infiltrated with spores, and a prodigious number encumbered the field of the preparation. Examined with the naked eye, the matters ejected by the first did not show, as did the second, any great number of the yellowish corpuscles, which were described by Tschamer de Gratz; but we have not met, as did that observer, with mycelium which for the rest we have seen in great abundance in the black powdery matter which develops on the rind of an orange in full putrefaction." He then goes on to say that he has never seen the little rods with central hour-glass construction described by Burger de Bonn, and suggests that he has mistaken chains of spores united two to two in such a manner as to simulate a central constriction for these. "In a great number of our preparations the micrococci were endowed with movement, except when they were made with the expectoration of infants already submitted to the topical application of resorcine. The presence and the proliferation of the micrococci in proportion to the advance of the whooping, and, on the other hand, their diminution and the loss of their movement towards the termination of the attack under the direct influence of treatment, appears to me to constitute indices the most significant of the causal relation between the parasite developed upon the laryngeal mucous membrane and the disease." Even Prof. Rossbach, who was supposed to have contested the parasitic origin of this disease, regards the expectorations as of a nature probably virulent, without explaining in any way the reason of that supposed virulence.

(To be concluded.)

[11] Moncorvo: De la Nature de la Coqueluche et de son Traitement par la Résorcine (Rio de Janeiro, 1883); Della Tosse Convulsiva e della sua Cura con la Résorcina (Archiv. d. Patolog. Inf., Napoli, 1885).

NOTES ON THE CLINICAL VALUE OF THE BACILLUS TUBERCULOSIS.

BY ALEXANDER BLACK, M.B., F.R.C.P. EDIN.

THE experience of the last few years among practitioners as to the value of the presence of the bacillus in the sputum of phthisical patients is varied: some declaring that it is to be detected in almost every case, at least at some period of the history of the disease; others that they have seen it disappear before death; and others, again, arguing against its importance as a factor in diagnosis from its spasmodic occurrence. From an examination of numerous cases, it would seem to me to have a clinical value far beyond what it has hitherto had as an element in diagnosis. The method of detection I have invariably employed has been that of Gibbes, and of this method it can only be said that it has always given uniform results. In every case error in observation was prevented by preparing duplicates. In several cases of undoubted phthisis repeated examination has not discovered any trace of the bacillus, while in other more doubtful cases the finding of the bacillus has at once added certainty to the diagnosis. In the cases of undoubted phthisis where the sputum has been examined and bacilli found wanting, it has been found that the symptoms as apart from the local signs of the disease have been extremely slight, and certainly some of the characteristic symptoms of the disease have been entirely absent—as, for example, the anæmia and night sweats.

In the case of one sputum from a woman aged about forty, who in early years had been the subject of glandular abscesses of the neck, and who at present is suffering from a catarrhal affection of both lungs, as evidenced by the local signs, there has not hitherto been found a single bacillus. This patient complains of nothing save the cough, expectoration, and great debility. An examination of the lungs reveals crackling indeterminate breath sounds over the front of both lungs, with marked impairment of the percussion note at the upper part of the right lung. The patient has no night sweats, and has a remarkably healthy ruddy colour. Her lips are rosy red, as also the interior of the mouth; and the conjunctivæ have their normal appearance. One of this patient's children, aged six, died some short time ago from tubercular disease of the lung, and another, aged eighteen months, died from meningitis. What appears to me the feature of this case is the apparently grave nature of the local signs, and the absence of general symptoms commensurate with the local disease. This, also in connexion with the absence of bacilli in the sputum, is further remarkable.

Another case is that of a man, aged thirty-two, who had a slight pulmonary hæmorrhage. He had formerly been in good health; only one illness can he remember, and that was pleurisy, when he was a lad. For some short time before the hæmorrhage he had not felt well, complaining of

cough, emaciation, and general debility. What struck me first of all, on seeing this patient, was his extreme pallor, notwithstanding the small amount of hæmorrhage that had occurred—certainly not more than two tablespoonfuls of blood. His gums, palate, and conjunctivæ had the appearance of extreme anæmia. On physical examination the right side of the thorax was found to expand much less freely than the left side. This may have been the result of the old pleurisy, as it had occurred on this side. Percussion revealed a note of higher pitch and shorter duration at the outer part of the base of the right lung. The vocal resonance was much increased here, and the other auscultatory sounds were a loud apparently friction sound and moist râles. The other parts of the lungs seemed perfectly free from disease. The patient also complained of pain at what I considered the seat of the disease. As has been mentioned above, for some short time before the hæmorrhage he had complained of losing flesh, night sweats, and general debility. An examination of the sputum was made as soon as it was untinged with blood, and the examination revealed numerous bacilli. Here, then, was a case the chief feature of which was the extreme anæmia, emaciation, and night sweats, associated with comparatively slight local signs and coincident with the presence of numerous bacilli in the sputum.

One other case deserves mention, that of a young man, a watchmaker by trade, who came to me several months ago complaining of pain in the left side, cough, and expectoration. On examination, a friction sound was heard about the middle of the left side at the seat of the pain; crackling was also present; but there was at this time no impairment of the percussion note. The man gradually from this time became emaciated and anæmic, night sweats and extreme debility being also present. A few days after, the above local signs continuing, there was superadded to them a very marked impairment of the percussion note. The patient continued going on from bad to worse, and it was determined to send him off to some country town (Peebles), where he could at least have the advantage of fresh air and milk. Unfortunately, at this time his sputum was not examined. While in the country he gradually improved, gained flesh, and got rid of the night sweats. Several weeks' residence in the country improved him so much that he determined to return to town and resume work. On examining him on his return, the left side was found to be even worse than on his removal to the country, showing that, at any rate, the physical signs had not improved. The percussion note over the whole side, back, and front was much impaired, it giving the impression that the underlying lung was almost solid. At the upper part of the lung tubular breathing, without moist râle accompanying it, was heard, and at the middle and lower parts of the lung crackling indeterminate respiration. His sputum at this time showed entire absence of bacilli, and what seems remarkable was that the man complained of nothing save his cough. I regret that this man's sputum was not examined before his removal to the country, as I should have expected to have found numerous bacilli. At any rate, the absence of bacilli and of general symptoms on his return is sufficiently striking.

I think most of us who have examined the sputum for bacilli will admit to having seen a general improvement in the patient coincident with a diminution in the number of bacilli. Why this should be it is easy enough to imagine, if they have a causal relation to tubercular disease. It appears to me to be an explanation accounting for the grave symptoms of phthisis pulmonalis apart from the local signs, if we imagine the bacilli to be the origin of some product which, on admission to the blood system, acts as a poison either on the nervous centres, causing vaso-motor and other disturbances, or perhaps acts directly on the blood itself, destroying its hæmoglobin (pre-tubercular anæmia). At any rate, there seems reason to believe in the following assertions:—1. That in those cases of phthisis pulmonalis with grave constitutional symptoms, unaccompanied by local signs or commensurate local signs sufficient of themselves to account for the symptoms, the chances are that the bacilli are present in greater or less quantity. 2. That in those cases where the constitutional symptoms are slight and the apparent local signs great, the chances are that the bacilli are more or less absent. 3. That the first effect of the diminution of the number of bacilli in the sputum will be an amelioration of the general disturbance. Our aim, then, should be directed towards the destruction of the bacilli when present, and preventing them doveloping when the soil is suitable.

I have not spoken of temperature, as my observations are not yet ample enough to draw any conclusion therefrom.

Edinburgh.

SEQUEL TO A CASE OF MYXŒDEMA IN A WOMAN AGED SEVENTY-SIX.

BY C. W. SUCKLING, M.D. LOND., M.R.C.P.

IN THE LANCET last year I published an account of a case of myxœdema in a woman aged seventy-six. Since then the patient remained in the Birmingham Workhouse Infirmary *in statû quo* until Feb. 26th last, when my attention was drawn to her. I found that she was semi-comatose, could not speak or be made to respond in any way to questions put to her. The pulse was 36 per minute, and very feeble; the respiration 16, stertorous; the temperature was 95°. On the 27th the patient was completely comatose. The pulse was still 36; the respirations 12 per minute. The temperature could not be taken with the ordinary clinical thermometers, which were not graduated below 95°, the mercury not rising to within an inch of the first mark on the glass. A thermometer used for taking the temperature of baths was separated from its iron frame, on which was the graduation, and the bulb was placed under the tongue for half an hour, the level of the mercury being marked on the stem with ink. The thermometer was again placed in its frame, and the registration was 76·5°. The next day the pulse was imperceptible at the wrist, the heart-beats being 20 per minute. The temperature, taken the same way as the day before, was 70°. During the day it was taken several times, and varied from 66° to 70°. The patient died the same night. The bath thermometer, immersed in warm water, at the end of three minutes registered 99°, a clinical thermometer 98·5°, so that we must not conclude that the patient's temperature was exactly as recorded. Still, allowing a degree or two, the temperature in this case must be one of the lowest ever recorded during life. Dr. Barling, Professor of Pathology at the Queen's College, has kindly undertaken to report a full account of the necropsy.

Birmingham.

THE CONNEXION BETWEEN GLYCOSURIA AND BILIARY OBSTRUCTION.

BY W. T. WYATT, M.A., M.D. OXON.

IT has been demonstrated by Dr. Wickam Legg, and confirmed by Von Wittich, that ligature of the bile-ducts causes the disappearance of glycogen from the liver, and that after ligature glycosuria cannot be produced by puncture of the floor of the fourth ventricle or section of the cervical sympathetic. It is presumed that the retention of bile within the liver interferes with the nutrition of the hepatic cells, and so prevents them from carrying on their natural function of glycogen formation.

The following clinical case appears to me to support the conclusions drawn from the above-mentioned experiment. A lady, aged sixty, has for some time suffered from glycosuria, and latterly albumen has been present in addition; the amount of sugar excreted usually ranges from ten to twelve grains per ounce, and no material alteration in this quantity occurred when the urine became albuminous. The urine has been always highly saccharine, even when a strictly nitrogenous diet was enforced, a symptom pointing to the fact that a too rapid metamorphosis of hepatic glycogen was the probable source of the excess of sugar in this case. A short while ago this patient became jaundiced, the urine containing both biliary acids and colouring matters, and with the appearance of the jaundice the sugar diminished from its usual amount to a hardly perceptible trace, Fehling's reagent, the picric acid and indigo carmine tests, giving almost negative results. The disappearance of the sugar could in no way be accounted for by alterations in diet, for the appetite and manner of living remained the same as usual. In this case, however, there was undoubtedly

some obstruction to the bile-ducts, as no bile could be detected passing with the stools, so that a pathological condition was here established analogous in its result to the experimental ligature, for in each case the escape of bile was effectually hindered. If, then, it is correct that the retention of bile within the liver prevents the formation of hepatic glycogen, it necessarily follows that the same retention must greatly diminish the amount of sugar in a case of glycosuria of that type in which the disease is chiefly dependent on a too rapid metamorphosis of glycogen into sugar. In making deductions from a single case, it is well-nigh impossible to separate the *post hoc* from the *propter hoc;* but, at any rate, in this case, coincident with the retention of bile, the amount of sugar excreted fell to zero, and remained so as long as the obstruction lasted—speedily, however, regaining its usual amount of ten grains per ounce as soon as bile was again poured into the intestines.

The whole subject of glycosuria up till now has been elucidated more by the experimental physiologist than by the physician. However valuable such experiments may be, the results obtained from them are often very fallacious, the condition under which they are conducted in many cases being far removed from anything existing in nature, so that confirmation of such observations by clinical work is always highly satisfactory. Of course the phenomena of this case may bear an interpretation differing widely from that which I have assigned to them; still, I venture to think that the biliary retention being accompanied by an almost entire absence of sugar in the urine was not a mere coincidence, but that the two symptoms were related to each other as cause and effect.

Stamford-hill.

CASE OF SUPPURATING KIDNEY; NEPHROTOMY AND DRAINAGE.

By MICHAEL T. SADLER, M.D. LOND., &c.,
HONORARY PHYSICIAN TO THE BECKETT HOSPITAL, BARNSLEY.

E. N——, aged twenty-two, telegraph clerk, consulted me for the first time on Jan. 18th, 1885, on account of a pain in his right side. He had been ailing for about two years, and had felt more or less of the pain for about twelve months. Since November, 1884, he had lost weight and strength rather rapidly, but had not left his work. Sometimes the pain was very violent, striking up into his head and face in the form of neuralgia. There were also frequent night sweats. The pulse was usually 110 to 120, and the temperature, even in the morning, over 100°. On examination, I found a tumour, which he had not noticed, in the right flank, rounded, ill-defined, semi-fluctuating, extending from the liver down within the crest of the ilium, coming in front to within two inches of the umbilicus, and passing backwards behind the dorsal muscles. The urine, on examination, proved to be albuminous, containing much pus; sp. gr. 1014. At times the urine was for a short time clear and free from pus or albumen. There was no distinct phthisical family history. His father and one sister died of heart disease.

Having arranged for his admission into a private ward in the Beckett Hospital, on March 6th I cut down on the kidney by an incision four inches long one inch below and parallel with the last rib on the right side. On dividing the lumbar fascia about a pint of offensive curdy pus escaped, and then the finger could be passed into a cavity roughly reniform in shape, occupying the position of the tumour, apparently about eight or nine inches from above downwards, but the lower end of which could not be reached. No calculus could be felt. The cavity was washed out with carbolic lotion, and a large drainage-tube inserted.

The pain ceased to be troublesome after the operation, the hectic symptoms gradually diminished, and the appetite, which had been very poor, soon returned. The drainage-tube was kept in until the 21st, the cavity being daily washed out with carbolic lotion until the 24th, when the urine became smoky-looking, and sanitas was substituted for carbolic acid in the lotion. On April 6th he was allowed to leave his bed, and on the 19th was removed home. On the 20th he passed a small phosphatic calculus by the urethra, and on May 9th had suddenly an attack of pain in the left calf and foot, with partial obstruction of the left femoral artery. This, however, had quite passed off by the 20th, and from that time his progress, though slow, was continuous, although the urine continued to contain pus, sometimes more and sometimes less. In July he returned to his work and was able to attend the regulation number of hours (eight daily) until March, 1886. Up to Christmas, 1885, he was free from pain, had a tolerable appetite, taking more milk than meat, and had gained flesh. There was still a discharge of pus from the opening in the loin, but the urine was free from any cloudiness. A sample examined on Nov. 11th proved, however, to be albuminous, sp. gr. 1014, alkaline, with a white deposit containing pus-cells and a few crystals of triple phosphate. He broke down under the severe weather of February and March, 1886, and died from uræmia on March 19th. No examination of the body was obtained.

ABSCESS OF KIDNEY TREATED BY FREQUENT TAPPINGS; RECOVERY.

By THOMAS EDWARDS, M.R.C.S., L.R.C.P., L.M.

On Dec. 4th, 1885, W. V——, aged twenty-three, of this village, working in London as a gravedigger, returned home complaining of constant pain of a dull aching character in the lumbar region, which he had had for the last eighteen months. He had been treated for lumbago and liver disease. The family history is good. He stated that he had never injured himself to his knowledge, and that he had "shivering fits" continually.

On examination the patient was greatly emaciated, appearing as one in the last stage of phthisis. There was pain on pressure over the right kidney, also pain on fully extending the right leg. There appeared to me deep fluctuation midway between the last rib and the crest of the ilium. Hectic fever and rigors were present; the urine was scanty and high-coloured, albuminous, but free from blood or pus; there was also profuse diarrhœa. I inserted obliquely upwards a trocar and cannula (one I usually carry in my dressing-case) to its full length, midway between the last rib and the crest of the ilium and two inches from the spine, and drew off a tumblerful of offensive pus resembling cream.

For the following two days the patient's condition improved, but soon afterwards all the bad symptoms returned. I again tapped and drew off another half-pint of pus. I repeated this operation five times, drawing off altogether three pints and a half of pus, the last drawn being terribly offensive. On each occasion the small wound made by the trocar healed in a day or two. The patient's condition after this greatly improved; the pain, fever, and rigors disappeared; he could walk, had a good appetite, and was rapidly gaining flesh. I gave quinine throughout, but now added tincture of iron and cod-liver oil. About three weeks after the last tapping the patient complained of an uncomfortable feeling in the old place, but no pain. I again tapped, and drew off three pints of clear amber-coloured fluid resembling urine; this operation I repeated several times, but on each occasion less came away, until it disappeared. The patient has quite regained his health and strength, taking long walks daily. Urine normal.

Harrold, Beds.

LIVERPOOL SOUTHERN HOSPITAL.—On the 11th inst. the Duke of Connaught, who accompanied Her Majesty in her recent visit to Liverpool, visited this hospital, which fourteen years ago he had formally opened. An address was presented to the distinguished visitor, in which it was stated that since its opening 107,000 persons had received at it medical or surgical aid. After inspecting the various wards, the Duke gave the name of the "Margaret Ward" to the apartment occupied by the children, and expressed his great satisfaction with the arrangement and management of the institution.

IN St. Pancras on Sunday last, the fourth annual United Friendly Societies' demonstration and church parade in aid of the funds of the West London and University College Hospitals took place, in the presence of a large number of persons. Collection boxes were exhibited along the route taken by the procession, and a substantial sum is said to have been collected.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF OVARIAN DERMOID TUMOUR IN A GIRL OF THIRTEEN; ROTATION AND COMMENCING GANGRENE OF THE CYST; OVARIOTOMY; RECOVERY; REMARKS.

(Under the care of Dr. CAVAFY and Mr. HAWARD.)

THE following case is one which presents several points of interest: the age of the patient, the character of the tumour, and the twisting of the pedicle, which had produced several attacks of localised peritonitis, from changes in the cyst wall, due to obstructed circulation, and had even caused commencing gangrene at the time of removal. We would refer our readers to the remarks appended to the case. The inflammation of the parotids, which developed six days after operation, does not appear to have been severe, or accompanied by much pain or constitutional disturbance. It may possibly be an example of the parotitis which occasionally develops after abdominal operations, though that is usually limited to one gland, rarely if ever affecting both simultaneously.

Alice A——, thirteen years and nine months of age, was admitted on June 6th, 1885, on account of constipation, vomiting, and abdominal pain. The mother stated that she had for some months past noticed the girl's abdomen to be swollen, and that the child had on three or four occasions during the last four months complained of stomach-ache and sickness; but these symptoms were not severe, and passed off without treatment, so that she attributed no importance to them. Menstruation had not commenced. During the last week in May a more severe attack of abdominal pain occurred, and though it ceased after a few hours the child had not seemed well since, but had been languid and lacked appetite. On June 3rd the abdominal pain recurred with severity, the child became worse, and lay in bed with her knees drawn up. On the following day vomiting occurred, and continued several times every day, chiefly after food. The matter vomited was said to have become offensive. There had been no action of the bowels since June 2nd. Some aperient had been given, but was vomited. Enemata had also been administered, but brought away only a few very small lumps of feculent material.

Her condition on admission, described chiefly from notes by Dr. Griffiths, the registrar, was as follows:—She was a pale girl of fair growth. Pulse 84, very small and weak; temperature 100°. Examination of the abdomen revealed an elastic tumour of rounded outline, extending downwards from about an inch above the umbilicus, and three or four inches towards each iliac fossa. It was more prominent on the left of the umbilicus, but extended rather further to the right of the middle line. The tumour was elastic, dull to percussion, and movable. Beyond the tumour the abdomen was mostly resonant, though there was slight comparative dulness in the right flank. She was given belladonna and opium, and small quantities of beef-tea and milk.

On June 7th, Dr. Cavafy, having diagnosed the case as one of ovarian tumour, requested Mr. Haward to see the child in consultation. She had not been sick, and was in rather less pain. Temperature 100°; pulse 120, weak. She lay sometimes on her back, sometimes on her side, with the knees drawn up; tongue slightly coated. There had been no action of the bowels. A catheter was passed into the bladder, and a small quantity of urine drawn off; it was high-coloured, had a specific gravity of 1028, and was free from albumen. Examination of the rectum showed the bowel to be empty as far as the finger reached. The uterus could be felt of natural size and position. The tumour was also easily felt through the bowel. There was some abdominal tenderness, chiefly over and in the neighbourhood of the tumour. There was very little resistance of the abdominal muscles. Mr. Haward agreed with Dr. Cavafy's diagnosis of ovarian tumour, which had probably recently risen out of the pelvis.

On June 8th there was more abdominal pain and tenderness. The tumour was now more prominent, especially towards the right side of the umbilicus. Pulse 120, weak. Rather more distension of abdomen; no action of bowels; she looked decidedly more ill. Dr. Champneys now saw the case in consultation, and agreed that the tumour was an ovarian cyst, and that peritonitis was commencing, probably in consequence of a twist of the pedicle. Ovariotomy was decided upon, and was performed next morning by Mr. Haward. Ether was administered and antiseptic precautions observed, but no spray was used. An incision was made in the middle line below the umbilicus, and on opening the peritoneal cavity a considerable quantity of clear light-yellow fluid escaped. The peritoneum was vividly injected. The tumour at once presented, and was seen to be of dark-purple colour, its vessels greatly congested, and some parts of the surface almost black. The cyst was thick-walled, about eight or ten inches in diameter, and very tense. It was tapped and emptied of its fluid, which contained a large quantity of blood. The pedicle was seen to be twisted twice round its vertical axis. The cyst having been drawn out of the wound, the pedicle was transfixed and tied with a double ligature of carbolised silk; the tumour was then cut away and the pedicle returned into the abdomen. The left ovary was ascertained to be healthy. The wound was closed with deep and superficial sutures of carbolised silk and covered with a dry pad of carbolised wool enclosed in eucalyptus gauze, over which strips of plaster and a flannel bandage were applied. The tumour sprang from the right ovary, and within the chief cyst was a smaller one containing caseous matter and hair.

No sickness followed the operation, but the bowels acted several times, the motions being very loose. She was given five drops of laudanum in a teaspoonful of water every four hours. No food was given till the following day, when she was allowed a pint of milk in the twenty-four hours. She went on well, with a natural temperature, till June 13th, when a sudden rise of temperature occurred (102·6°). The wound was therefore dressed, when it was found that she had passed some urine in bed, and that the bandage and pad under her back had thus become soiled. The wound was united soundly, excepting that a little pus had formed round the two lowest superficial sutures. All the stitches were removed. The temperature from this date declined, and on the 16th was normal, after which there was no further rise. On the 14th she had complained of tenderness at the angles of the jaw, and on the 15th both parotid glands were tender and swollen. The attack of mumps, however, soon passed, and from that time she made an uninterrupted recovery. At the end of a fortnight she was well, and after a few days was allowed to get up. On July 15th she was sent to the Convalescent Hospital at Wimbledon.

Remarks.—Mr. Haward, after pointing out the grounds of the diagnosis, said that the surgical treatment was obviously ovariotomy; for the history of the previous attacks of pain, the subsidence of these, and the sudden recurrence of pain and vomiting pointed almost certainly to a rotation of the tumour, with the attendant dangers—hæmorrhage, gangrene of the cyst, and peritonitis. It seemed more probable that the constipation depended upon peritonitis than upon obstruction of the bowel by the pedicle or the tumour, because of the subsidence of the vomiting and the slight amount of distension of the abdomen. The operation was performed with every antiseptic precaution, although the spray was not used, Mr. Haward stating that he had found his ovarian operations were no exception to the rule that obtained with regard to his other operation—namely, that, provided due care were observed in other respects, nothing was gained by the use of the spray. The dressings consisted of a dry antiseptic pad, which was recommended both for comfort and efficiency, not only for abdominal section, but for most recent wounds. Wet dressings are much more apt to irritate the skin and to excite suppuration; dry antiseptic wool, on the other hand, absorbs discharge, protects the wound from external influences, maintains the part at an equable temperature, and by its elasticity gives comfortable support and keeps the wound at rest. The after-treatment was of the simplest kind. No food was given for the first sixteen hours, thirst being allayed by washing out the mouth with warm water in which a little permanganate of potash was dissolved. Small doses of laudanum were

given at first because of the looseness of the bowels, and later on, when the urine became loaded, lithia water was ordered. This was all that was needed in the way of medicine. The transient fever which occurred after the operation was probably due to the attack of mumps, which did not, however, materially delay recovery. The importance of examining both ovaries at the time of operation was pointed out and illustrated by the relation of two other cases of ovariotomy in quite young women, in whom Mr. Haward had found both ovaries diseased to an extent requiring removal. The first, a girl of eighteen, had, like the present case, a dermoid cyst of the right ovary; the diagnosis of its character being easy from the fact that hard masses (bone and teeth) could be felt in the cyst through the rectum. This cyst being removed, the other ovary was examined, and found to contain several cysts, one of which was of the size of the fist; it was therefore also excised. The second patient, aged twenty, had a large cyst of each ovary, forming tumours of about equal size. They were both removed. The patients in each instance made rapid and uninterrupted recoveries. The child whose case is related above has quite recently been to report herself at the hospital, and is in perfect health.

BURTON-ON-TRENT INFIRMARY.

A CASE OF "CRUSHED ABDOMEN"; DEATH ON THE THIRD DAY; NECROPSY; REMARKS.

(Under the care of Mr. MASON.)

DAVID T——, aged thirty-three, a porter, was admitted early on April 16th. He walked from the cab into the ward. He complained of great pain in the epigastrium, and said he had been squeezed between the buffers of two trucks, which were wide enough apart for him to get through sideways, but that steam was put on at the moment, and he had been caught and held some seconds. He had been seen and released at once. He had not been unconscious.

On admission the extremities were cold. There was no pulse at the wrist. The body was warm and without marks of violence. No ribs were broken. The heart-beat was regular—100, rather feeble. No abnormal dulness on percussion. The epigastrium was very tender on pressure. No hæmoptysis, hæmatemesis, or melæna. He had passed urine just previously to the accident. Vomits a good deal of greenish bile. He was ordered nutrient enemata every two hours, and nothing but ice by mouth. A soap-and-water enema brought away a healthy motion, but no blood.

April 17th.—Much the same. No pulse. Vomits a great deal of bile; is in great pain. Enemata continued and retained well.

18th.—Seems better to-day. Less pain and no vomiting. Called for food, and was allowed some beef-tea, which he retained some hours and afterwards vomited. Pulse at wrist for first time about 100, regular, small.

19th.—Pulse absent at wrist; hands cold. Sat up in bed twice to-day, once of his own accord, the second time at the request to have his back examined. Some dulness at left base behind. Dulness for two inches below right nipple; resonant below and over front of abdomen; rather dull in flanks; abdomen swollen. Died at 12 noon.

Necropsy.—On opening the abdomen a most fetid smell arose, and a large quantity of fluid blood poured out. The omentum was adherent all over to the intestines, which were likewise glued together by recent lymph. The coils of small intestine lying below the umbilicus were quite black, and had lost their gloss in places. The intestine was ruptured transversely in three places, to the extent of an inch, at a distance of a few inches from one another and about four feet from the cæcum. The liver, which was uninjured, was pushed upwards, and had its lower edge pointing forwards just at the level of the right nipple (hence the dulness), its ordinary position being occupied by distended gut. The stomach, kidneys, and spleen were healthy. The lungs were rather collapsed, especially the left, which was displaced upwards considerably by the blood in the abdomen, corresponding with the dulness observed at the left base behind.

Remarks by Mr. MASON.—The case is remarkable for the length of time the man lived with such extensive injuries, and with such an absence of symptoms, especially that there was no discharge of blood from either the mouth or bowel. I saw him about half an hour before his death, when he was complaining of the nurses because they would not bring him any solid food. After this he fell asleep, and died in his sleep.

WEST BROMWICH DISTRICT HOSPITAL.

A CASE OF RARE INJURY TO THE PELVIS; DEATH; NECROPSY.

(Under the care of Mr. LANGLEY BROWNE.)

THE following notes have been furnished by Mr. E. W. D. Kite, house-surgeon.

E. H.——, aged twenty-six, a powerfully built man, was admitted on Dec. 13th, 1885, in a state of extreme collapse. He had been raising a grindstone weighing nearly two tons, when the crane chain slipped and he was knocked down, the grindstone falling on his left hip and remaining there for some minutes before it could be removed. The left limb was colder than the right; there was pulsation in both tibials; no signs of fracture; swelling above Poupart's ligament extending along the iliac crest; very little bruising; a small wound in the perineum a little to the right of the raphé. When a catheter was passed into the bladder, bloody fluid rose and fell with the respirations, but no urine passed.

There being evidently ruptured bladder, it was resolved to open and clean the abdomen, to stitch up the bladder and drain; but before doing this the perineal wound was enlarged so as to admit an exploring finger. A tremendous gush of clots then took place, followed by very free hæmorrhage. An incision was then made above Poupart's ligament, and the swelling found to consist of blood-clot. The external iliac was then exposed by pushing up the peritoneum, and it was then seen that the epigastric artery was torn off from the external iliac, leaving a hole in the side of the latter, from which the hæmorrhage arose. A ligature was passed above and below the aperture, and all hæmorrhage ceased. The patient died in four hours from shock. After death it was found that both rami of the pubis were fractured obliquely, and that they had been greatly displaced under pressure, returning to their normal position when the pressure was taken off. The upper fractured ramus had torn off the epigastric and had lacerated the bladder; the lower one had torn across the urethra and inflicted the perineal wound. As all the injuries were extra-peritoneal, a long drainage-tube was passed from the iliac incision through the perineal wound, the course which the blood had taken after rising along the crest of the ilium. In this case abdominal section would have been of no use.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. W. VINCENT JACKSON.)

THE following is chiefly remarkable as being the record of surgical work done in a single day by one surgeon in a provincial hospital.

CASE 1. *Perineal Median Cystotomy for the removal of a small Vesical Calculus.*—E. H. J——, aged five years, was admitted with a small stone in the bladder. Chloroform being administered, a small-sized staff grooved on the convexity was passed into the bladder. A small incision half an inch long was made in the median line of the perineum, the urethra being incised at the same time. Along the groove of the staff a director was conducted into the bladder, and the former being withdrawn, a very narrow pair of lithotomy forceps was pushed within the groove of the latter into the bladder; the director being then removed, the stone was caught and brought away; it weighed 26 gr.

CASE 2. *Amputation of the Tongue.*—J. B——, aged eighty-two, was admitted with epithelial cancer of the right side of the tongue far back. Chloroform was administered, and the whole of the tongue was cut away.

CASE 3. *Amputation of a portion of the Tongue for Tubercular Ulceration of the Lip.*—Rachel L——, aged thirty-seven, was admitted by Dr. Malet on account of a very painful ulcer, the size of a sixpence, at the tip of the tongue, and with signs of advanced phthisis at the apices of both lungs. Chloroform was administered, and the front portion of the tongue, half an inch from the apex, was cut away with scissors. Afterwards the mucous membrane covering the two surfaces was brought together by ten points of interrupted suture of very fine silk.

CASE 4. *Ligature of Brachial Artery.*—W. B——, aged thirty-three, was admitted on account of an aneurysm of the left radial artery high up, as well as extensive disease of the aortic valves. The left brachial artery was ligatured in the middle of its course.

CASE 5. *Amputation of the Right Leg.*—D. C——, aged forty-six, was admitted with a large epithelial ulcer of the outer side of the right foot. An ulcer had existed for thirty-four years. Ether was administered, and amputation of the upper third of the right leg was performed.

CASE 6. *Trephining the Upper End of the Left Tibia.*—Annie W——, aged thirteen, was admitted on account of constant pain at the upper end of the tibia, which was enlarged, and the periosteum covering it thickened. Chloroform was administered, and the painful spot was deeply trephined.

CASE 7. *Osteotomy of both Tibiæ.*—Sarah G——, aged three, was sent in by Dr. Dingley on account of right genu valgum and considerable anterior curvature of both tibiæ. Chloroform was administered, Esmarch's bandage applied, and each tibia having been sawn across and the fibulæ broken, the limbs were adjusted into a straight position upon proper splints.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Ligature of the Larger Arteries in their Continuity.—Congenital Absence of Hair with Atrophy of Skin and its Appendages.

AN ordinary meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair.

Mr. BALLANCE and Mr. W. EDMUNDS communicated a paper on the Ligature of the Larger Arteries in their Continuity: an Experimental Inquiry. The experiments were made by the permission of Professor Birch-Hirschfeld at Leipzig. The object of the paper was to show that in the ligature of a large artery in its continuity (1) it was neither necessary nor advisable to tie the ligature so tightly as to rupture the coats of the vessel; (2) the lumen of the vessel must be completely or almost completely obliterated; (3) the round ligature, of small size and possessed of certain qualities, was the best. The authors commenced with a short historical sketch. They then stated the reasons which led them to perform the experiments which formed the basis of the paper. Nineteen carotid arteries of sheep and horses were ligatured, some with catgut and others with kangaroo tendon, and the result in each case was given. The animals were killed and the vessels removed from nine hours to seventy-three days after ligature. The general results of the operations were summarised, and the best material for ligature and the function of the clot discussed. Certain objections which might be raised were considered, and, in conclusion, the authors recommended for the operation of ligation in continuity—(1) aseptic precautions; (2) the small round absorbable ligature; (3) the maintenance of the integrity of the arterial wall. The paper was illustrated by macroscopic and microscopic preparations, and by drawings. It was seen in the preparations that the inner coats, even where included in the ligature, were alive and apparently of unimpaired vitality; that, although the tunics were unruptured, a plastic effusion had taken place, which in the arteries removed latest was developing into connective tissue, permanently occluding the vessel. With respect to the ligatures, leucocytes were thrown out round them, and gradually caused their absorption. In the case of kangaroo tendon, the absorption took place only from the surface; but with catgut the leucocytes insinuated themselves along the crevices formed by the twisting of the gut, and the ligature became absorbed more rapidly. The durability of catgut seemed to vary in different specimens; but it was thought that in wounds that healed by first intention good catgut held for about a month, and kangaroo tendon for two. In the three carotids of horses in which alone suppuration had occurred, it was proved that catgut was rapidly becoming absorbed in fourteen days, and had completely disappeared in fifty-one days, and that kangaroo tendon was but little altered in ten days.—Mr. BARWELL agreed largely with the conclusions of the authors, especially as to the undesirability of rupturing the internal coats. Whether it was preferable to use the round rather than the flat ligature for the purpose was a matter on which he joined issue with them. A small round ligature would more readily tear the inner coat. We ought not to lose sight of the different states in which the vessels are; some were tightly stretched, and others in a lax state. He had formed his own conclusions as the results of experiments on dead subjects and living animals. He considered that a flat ligature could lie smoothly, and the knot was not clumsy, though of large size, which he regarded as an advantage, for a small knot of catgut was more liable to set up ulceration and perforation, as in a case of innominate aneurysm in which Mr. Bennett May ligatured the carotid artery. A large knot obviated that difficulty of ulceration and perforation altogether. Again, a small knot was not sufficiently broad to resist the impulse of the blood current. A good-sized clot in the vessel was also advantageous as a check to the force of the blood current. There was further a general unreliability in carbolised catgut, which at least introduced an element of undesirable uncertainty, for it might be absorbed in a very short time.—Mr. SCOVELL SAVORY considered that the authors had collected an interesting series of facts, but he could hardly follow them in their conclusions that it was neither necessary nor advisable to rupture the inner coats. He failed to see how their experiments proved that it was not advisable; they had made no "check" experiments; their paper abounded in *ex parte* statements; the experiments had all been done in one way. If check experiments had been made they might have had facts which would justify their conclusions. Experimental investigations tended to show that the arterial system of animals differed very much from that of man; it was much more difficult to excite septic processes in animals, as Dr. Jones long ago proved. It was owing to the greater number of mishaps where animal ligatures were employed that made many surgeons hesitate still to employ them in preference to silk ligatures.—Mr. T. HOLMES also congratulated the authors on their industry and on the interest of the facts collated in the paper; but he hesitated to accept their main conclusions. He would not like to trust experiments on animals in guiding him as to what to do in the human subject. In one of Mr. Barwell's cases of ligature without rupture of the internal coats the vessel became pervious not long after the operation. He had been content with the practice at St. George's of division of the internal coats. In one instance Mr. Pick ligatured the femoral for popliteal aneurysm without rupturing the internal tunics, and pulsation recurred, though he felt bound to add that the vessel was afterwards tied lower down as tightly as possible, and then pulsation recurred. In truth, a long period of experience on human subjects would be necessary before we could accept the conclusions of the authors. In division of the internal tunics a greater amount of lymph was thrown out, which in itself would appear to be an advantage, and he asked whether there was a corresponding disadvantage in this excess of lymph. He could not but think that experiments on animals were not entirely satisfactory. It was at one time thought that a powerful barrier to the restoration of the circulation would be found in the employment of silver ligatures, which would produce no irritation. But in one instance in the practice of Brodhurst secondary hæmorrhage occurred. In a paper read before the Pathological Society Mr. Pick also showed how the artery could be occluded without dividing the internal coats by ligatures, which at the end of three weeks had not caused ulceration.—Mr. C. DENT had been engaged in a similar inquiry on the femoral arteries of sheep, using kangaroo tendon prepared in chromic acid, the internal tunics being completely ruptured. He considered that rupture of the tunics made the operation certain and was a better surgical practice. In one case pus formed around the ligature, which had not been rendered sufficiently aseptic. In none of the cases did secondary hæmorrhage occur.—Mr. BARWELL explained that he used the ox aorta ligature in the case referred to by Mr. Holmes, and the failure was purely an error of manipulation, and had nothing to do with the nature of the material employed.—Mr. W. EDMUNDS, in reply, pointed out that even in tying a flat ligature the knot was liable to present an angular projection, and so Mr. Barwell's argument that with a flat ligature the adhesion between the coats was

favoured need not always hold good.—Mr. BALLANCE, in reply, admitted that more skill was necessary to apply a round ligature so as not to rupture the internal coats, but a very little practice in the post-mortem room would suffice to show how to occlude the lumen of the vessel, so that no water could be syringed through. On examination it would be found that no damage to the tunics had been done. A long piece of artery was occluded even with a small ligature, as the specimens on the table showed. Dr. Jones's classical work was referred to by Mr. Savory, but at that time it was thought that the question of rupture of the coats had been threshed out. His object and that of Mr. Edmunds was to present a series of observations showing what happened when the coats were not ruptured.

Mr. JONATHAN HUTCHINSON contributed a paper on a case of Congenital Absence of Hair, with Atrophic Condition of the Skin and its Appendages, in a boy whose mother had been almost wholly bald from alopecia areata from the age of six. This paper described the case of a boy three years and a half old, who presented a very withered "old-manish" appearance. His skin was remarkably thin, in some places being not thicker than brown paper. The genitals presented a marked contrast to the rest of the body, being in the state of a normally plump child. He had no nipples, their sites being occupied by little patches of scar. The history of the patient showed that it had been necessary to turn during delivery, but he had had no ailments since teething. He was liable to vary much in blueness from temperature or excitement. The question of heredity in this case was discussed.—Mr. W. SEDGWICK said that the subject of hereditary alopecia was illustrated by Dr. Thurnam many years ago in a paper read before the Society. The grandmother and two grandsons had well-marked alopecia, and the teeth numbered only four in the grandchildren; the microscope showed an atrophic condition of sweat ducts and glands. Sometimes this atrophy was associated with a great development of hair in other members of the family. Among birds, by breeding in-and-in alopecia could be developed. The "top-knotted" variety of canary could also be obtained, and if two such bred together their offspring were frequently bald on the top of the head, and in some cases a deficiency of the skin also occurred.—Mr. J. HUTCHINSON had not described the case as simply one of congenital alopecia. The skin was defective in development also, and the nipples were absent, whilst, strangely enough, there was a perfect development of the skin of the genitals. There was an *acquired* defect in the mother, and a congenital defect in the child; but it would be futile to discuss the possible relationship until further facts had been brought together.

OPHTHALMOLOGICAL SOCIETY.

Exophthalmic Goitre.

AT an ordinary meeting of this Society held on May 6th, Mr. Jonathan Hutchinson, F.R.S., President in the chair, several papers were read on Graves' disease.

Mr. JONATHAN HUTCHINSON opened the discussion and dealt chiefly with the prognosis and treatment. In one case of complete recovery that occurred in a medical man, and which was recorded by Dr. Warburton Begbie in his collected works as recently published by the New Sydenham Society, the disease was in full course ten years ago. The pulse was very frequent, as much as 140 per minute. There was albuminuria for one year. The individual, though very nervous, was now in excellent health. There was, however, an intermittent pulse, the carotids pulsated, and the thyroid was still slightly enlarged; palpitation, too, was easily brought on and the pulse easily accelerated. A variety of remedies had been used, and a sea voyage taken, but it was difficult to say which remedy had done most good. The man himself believed that the bromide of potassium in twenty-grain doses three times a day had most effect in controlling the disease. But aconite, digitalis, and iron were also employed. Mr. Hutchinson related another case in which the coincidence of albuminuria also obtained. (Dr. W. Begbie had first prominently brought forward the occurrence of albuminuria.) It was that of a clergyman, and almost exactly parallel to that of the medical man. Both patients had been also examined by Dr. George Johnson. There was albuminuria every day for a year at least, but it was present on some parts of the day only, after meals, and more after breakfast than at any other time; after 3 P.M. it was usually absent. The extreme uncertainty of the prognosis of the disease, which was sometimes so threatening and prolonged, was referred to. He then said that his own experience was necessarily fragmentary, most of the cases being brought to him for ocular symptoms. He had seen a considerable number improve under the use of such remedies as digitalis, aconite, iron, and bromide of potassium. In one case a medical man pushed the tincture of aconite till twenty minims three or four times a day were given, and the good result was ascribed to that. As to the treatment of the ocular symptom, Mr. Hutchinson spoke very favourably of the systematic application of cold to the temples and forehead by means of ice bladders, and also to the nape of the neck. He had never seen the eyes lost in any case under his own care, though he knew of cases that had become completely blind. With regard to the influence of disturbed sexual and menstrual function, it was to be noted that young women and young men were attacked in preference to those of more advanced age. It was said never to happen to those who were pregnant. He believed that the disturbance of sexual functions must be regarded as the result of a common cause. He could not agree with the statement of Niemeyer that if men were affected with the malady they were of advanced age; his experience was to the contrary. He narrated an interesting case in which there was loss of sight of both eyes due to ulceration of the cornea, with sequent opacity. The patient was a woman aged twenty-five, who had been twice married; the proptosis began in the fifth month of pregnancy and lasted sixteen months. She had the affection for twelve months whilst suckling and for four months whilst pregnant. She did not suffer much in general health, and the case was an exception to the rule that pregnant women never suffer. If males were affected, he did not agree with Niemeyer that the disease was more likely to be more severe and fatal. His youngest case was in a boy and the two oldest were women.

Dr. BRISTOWE explained that he had no statistics to give, but that he proposed merely to place before the Society a group of interesting cases, which were already (when the announcement of the discussion was made) written out for publication, together with two or three additional facts furnished by other cases. He first gave very brief details of a recent case, in which, in a woman aged forty, the symptoms of Graves' disease were distinctly referable to prolonged exposure to cold. He also mentioned one case in which recovery appeared to be complete; and another in which, all signs of proptosis and enlarged thyroid having subsided, the patient still suffered at times from severe palpitation. He referred also to a case of the disease in which exophthalmos was associated with syphilis; and to one in which the patient died from organic heart disease. The cases of chief interest were three in number. Of these, the first was that (which had already appeared in *Brain*) of a young woman, who, about the year 1877, first showed signs of proptosis, enlarged thyroid, and palpitation, which symptoms, after continuing for a few years, became complicated with those of ophthalmoplegia externa. In 1882 she came under Dr. Bristowe's care. She was then suffering from nearly complete paralysis of all the external ocular muscles, ptosis, and proptosis. Moreover, she had complete hemianæsthesia on the right side, with colour-blindness and loss of taste and smell on the same side. Later, fits, apparently epileptic, supervened, with rigid paralysis of the right arm and leg. Also, she suffered from hæmorrhage from the ears. She was under Dr. Bristowe's care for two years, who, not at the time knowing she had suffered from Graves' disease, attributed her proptosis to weakness of the paralysed eye muscles. The thyroid was not visibly enlarged. She had no palpitation, but her temperature from first to last varied daily between 100° and 103°, 104°, or 105°. Finally, she died of an acute attack of bronchitis. At the necropsy no disease was discovered in the nervous centres; the thyroid was a little larger than normal; there was much fat in the orbit, and the ocular muscles were pale. Excepting for the prominence of the eyeballs, the patient appeared, so far as the signs of Graves' disease are concerned, to have recovered. The second case was that of a young married woman who had suffered for three or four years from Graves' disease, and in which the thyroid had become so large as latterly to cause attacks of severe dyspnœa. It was on this account that she went into the hospital. Her breathing was stridulous; but no

immediate danger being anticipated, no operative procedure was contemplated at the time. Unfortunately, a day or two after admission, she was attacked with a severe paroxysm of dyspnœa and, before anything could be done to relieve her, died. The third case was that of a young woman who had been suffering from the usual symptoms for some years, but who was also the subject of serious organic heart disease, there being evidence of aortic, mitral, and tricuspid affection. On admission, her breathing was stridulous; and, having regard to the result of the case last narrated, Dr. Bristowe consulted with his colleague, Mr. Sydney Jones, as to whether any operation was feasible. The goitre was unusually large, but fortunately the isthmus was narrow, and it was consequently determined to remove a portion of the isthmus and dissever the two lateral lobes—an operation which Mr. Jones had performed with admirable results in a case of ordinary goitre of Dr. Bristowe's, in which suffocation threatened. The operation was successfully completed in this case, and was followed by dwindling of the lateral lobes of the thyroid body and cessation of stridor. No other definite improvement followed. The prominence of the eyeballs continued, and the cardiac symptoms unfortunately progressed unfavourably, so that at the end of about four months the patient died of the heart disease.

A paper by Dr. Wilks was read by the Secretary (Dr. Sharkey). Dr. Wilks stated that, of the many cases which he had seen, some had recovered, others had died, and others had been lost sight of. He had also seen slight cases, which were probably modifications of the complaint. As to the question, What were the characteristic symptoms? he considered that there were increased frequency of the heart's action, enlarged thyroid, prominent eyeballs, a loud murmur heard in the veins with a thrill, and, in severe cases, great emaciation, with outbursts of sweating and diarrhœa. The increase in the cardiac rapidity he regarded as a primary and necessary symptom; quickened cardiac action, combined with exophthalmos and emaciation, or with enlarged thyroid and emaciation, he would regard as characteristic. The theory which attributed the symptoms to disease of the sympathetic in the neck was not good, and had not been found true in fact; though there was, probably, some disturbance of the sympathetic, giving rise to the extreme relaxation of the bloodvessels; the relaxation gave rise to murmurs which were much larger and harsher than any met with in simple anæmia; the diarrhœa and sweating might also be due to the sympathetic disturbance. Apart from the proptosis and enlarged thyroid, which could not come on suddenly, the symptoms resembled those seen in nervous women, especially at the climacteric. Violent palpitation, clammy sweat, diarrhœa, starting eyes, and choking were the symptoms produced by sudden fright. It was therefore reasonable to look to some relaxation of the sympathetic as a cause of the combination of symptoms seen in Graves' disease. The disease also seemed to have some relations with anæmia and chlorosis. Belladonna was the only drug in which he felt any confidence; he had observed the symptoms, even in severe progressive cases, so speedily reduced, that he could not doubt the value of the drug. After using it for some weeks, it was his custom, as the cases were tedious, to substitute iron, iodide of potassium, or digitalis, but he had observed no good effect attributable to these drugs. He gave the following categorical replies to the series of questions circulated by the Society (see THE LANCET, March 20th, p. 548.) 1. He had performed one necropsy; no lesion was found in the nerves or elsewhere. 2. No cause could be assigned in any case. 3. He had seen several cases in young women where the symptoms were modified. 4. He thought the disease removable (or curable). 5. He had had cases under treatment for two or three years, with great improvement; but relapses occurred. 6. He had never seen a case recover without treatment. 7. In none of his cases had the eye become diseased or vision imperfect. 8. He had never seen a case of simple exophthalmos. 12. He had never seen Graves' disease in conjunction with others (but he referred to Dr. Carrington's case mentioned below). 13. He had only seen two males affected with the disease; they were aged twenty-four and twenty-six respectively. He thought the disease was in some way associated with the reproductive organs; in women, he had seen it generally in those of middle age with families, or in young girls with anæmia and amenorrhœa.

Dr. HUGHLINGS JACKSON attached great importance to Graefe's sign, but had seen well marked cases of Graves' disease in which it was absent, mentioning, in illustration, the cases of two sisters. Again, he had found the sign present in a man who had no Graves' disease. These observations had been confirmed by Mr. Couper. Referring to the cases of the two sisters above mentioned, Dr. Hughlings Jackson remarked that a third sister was said to have the same morbid affection. Dr. Cheadle had seen four cases of Graves' disease in one family. Dr. Hughlings Jackson suggested a comparative study of such cases with some other "family diseases," such as pseudo-hypertrophic paralysis, Freidreich's disease, &c. In all the recent (eight) cases of Graves' disease he had seen, the right lobe of the thyroid was the larger, a fact bearing on the question as to central pathology, as Dr. W. A. Fitzgerald had suggested. The right vagus had, in some lower animals, more inhibitory influence on the heart than the left. Dr. Hughlings Jackson thought the hypothesis of a central pathology the most probable, and, in this connexion, referred to the experiments of Brown-Séquard and Filhene on production of exophthalmos by injuries of the restiform body. He believed that most would be learned as to the seat of changes in Graves' disease, from experiments on lower animals. In all cases of fatal Graves' disease, the medulla oblongata and pons Varolii should be carefully searched microscopically. He referred to so-called complicated cases, mentioning the remarkable case recorded by Dr. Warner and Dr. Bristowe, in which there was ophthalmoplegia externa; and a like case he had seen, a case complicated with asthmatic paroxysms, one with paroxysms of right-sided facial spasms, unlike cortical facial spasm, and a variety he supposed to depend on discharge of facial centres in the pons Varolii. Dr. Pavy had noted the association of Graves' disease with diabetes. In the so-called complicated cases the association might be accidental, but Dr. Hughlings Jackson thought they deserved very careful consideration. He did not remember seeing a case of Graves' disease in a man.

Dr. FITZGERALD (Dublin) said he had never yet seen the visible pulsation of the arteria centralis retina described by de Wecker. Visible pulsation of the veins was very frequently seen. Graefe's sign was not constantly present. In the cases in which a perfect cure occurred some of the ordinary symptoms were absent, or little marked. In some cases only one eye was affected by proptosis. He had seen one well-marked case in a man at the Meath Hospital, under the care of Mr. Foote, a man aged twenty-eight, in whom the affection had come on after an occasion on which he had danced excessively.

Mr. HILL GRIFFITH read a paper on thirty cases of Graves' disease. Twenty-seven were females and three males. The symptoms commenced twice under the age of twenty, sixteen times between twenty and thirty, seven times between thirty and forty, and five times between forty and fifty. Eighteen were single and twelve married. The ocular symptoms were bilateral twenty-three times, the right eye alone affected four times, the left three. Retraction of the upper lid (Stellwag's sign) was present twenty-two times, in four of which the lower lids were also retracted, it was absent three times, and not noted five times. Graefe's sign—a loss of consensual downward movement of the upper lid—was present four times, absent four times, and not noted twenty-two times. There was bilateral goitre fifteen times, and in three of these it was more marked on the right side, and there was increased pulsation of the carotid arteries. Spontaneous arterial pulsation was looked for in every case, and its absence was noted in twenty-six; there were no notes in this connexion of the remaining four. There were acute gastric symptoms at the commencement of the disease twelve times, loss of flesh twice, and minor complaints six times; no illness ten times. As to nervous symptoms, one patient felt as if she would choke sometimes, and then had a distinct hysterical attack; a third was easily frightened; and every morning a fourth was of "fussy" behaviour, and two others often flushed. Mr. Griffith thought the agitation of the patients was very characteristic. There were hæmic murmurs three times, an aortic systolic three times, mitral systolic the same number, and and in two a "thrill" was noted in the swelling; aortic regurgitation once. The right lobe was alone enlarged in two cases; goitre was absent in thirteen cases. Vision was normal seventeen times, subnormal twelve times, and once not noted. Of the twelve subnormal, ten were due to astigmatism; high degrees of myopia with staphyloma posticum. In two there was an amblyopia, and both improved. The refraction was normal twenty-two times, high degree of hypermetropia once, myopia four times, and

astigmatism three times. The fundus was normal in twenty-six cases, and abnormal in four; two with monocular myopia and staphyloma posticum, the eye symptoms being symmetrical; "cork-screw" veins were noted once, and once a glistening striated patch at the upper and outer part of one disc. The remainder were probably normal. Glycosuria was observed twice. The menopause began three years before the symptoms in one instance; in another the patient had severe headaches at the periods; and in another the catamenia ceased for six months, dating from the ocular symptoms; twice the catamenia were noted as irregular. As to the order of occurrence of goitre and exophthalmia in the seventeen cases in which both symptoms were present, in three the goitre preceded by two years, one year, and six months respectively; in one the symptoms were synchronous; in another the patient noticed the exophthalmos first. Frequently the patients were not aware of the presence of the goitre.

Dr. SAMUEL WEST read a paper on thirty-eight cases of exophthalmic goitre. About one case in every 1000 out-patients represented, perhaps, the relative frequency of the disease. Two-thirds of the cases occurred before the age of thirty. There were three male cases in a total of fifty-one. The ocular, thyroid, and cardiac symptoms all appeared simultaneously in six cases; the thyroid enlargement occurred first in eight cases; palpitation appeared alone and first in nine cases; exophthalmos came first and alone in four cases. From these and other facts, it seemed that there was great irregularity in the relative time of appearance of the cardinal symptoms. The right lobe of the thyroid was larger than the left, where there was a difference between the two. In one case, a marked decrease in size of the thyroid occurred after an acute attack of pneumonia. Exophthalmos appeared generally to be a late symptom. Graefe's sign was noted only in seven cases. Graefe's statement that the pupils were never dilated was not absolutely true. In one case there was slight ptosis of both eyes; in another there was persistent crossed diplopia and an external squint of the left eye. Attacks of profuse sweating were noticed in four cases. Seven times uncontrollable and unaccountable diarrhœa was observed, and six times paroxysms of vomiting. Diabetes mellitus was present in one case. A bronzing of the skin, suggestive of Addison's disease, was remarked in one case. Inexplicable changes in bodily temperature were recorded seven times; twice there was remarkable pyrexia, recalling that met with in cerebro-spinal disease. Other nervous symptoms noted in some cases were change in manner and character, somnambulism, trembling, fits, megrim, neuralgia, insanity, chorea. In eight cases there was a definite history of rheumatic fever. Considering the rarity of exophthalmic goitre, it was remarkable that rheumatic fever should be so often associated with it; possibly, the severe organic valvular disease noted sometimes may be due to antecedent rheumatic fever. Overwork, severe parturition, blows, fits, and rheumatic fever were causes assigned in a few cases; in the majority no cause was given. No constant relation could be established between the disease and the catamenia. In some cases there was a family history of nervous diseases. The longest duration of the disease was nine years, the shortest two months. In three fatal cases the disease had lasted respectively four years, two years, and three months. The constant application of cold seemed to have undoubted influence for good in the treatment of some cases.

Mr. C. HIGGENS related the case of a woman, aged twenty-nine, in whom the exophthalmos was so extreme that it appeared desirable to attempt to partially unite the margins of the lids; the patient died under the influence of an anæsthetic. The case was fully recorded in the Transactions of the Pathological Society, vol. XXV., p. 240. The main points noted at the necropsy (by Dr. Goodhart) were enlargement of the thyroid gland and thyroid veins, and slight hypertrophy of the heart; thickening of the sympathetic capsule, and of the mediastinal and cervical connective tissue; growth of gland tissue in the region of the thymus, and tendency of the lymphatic glands elsewhere to enlarge.

Dr. CARRINGTON narrated a case of exophthalmic goitre associated with Addison's disease in a woman aged twenty-three. There was a family history of phthisis, and she had suffered from migraine. The symptoms were palpitation and prominent eyes for two years, with vomiting and a feeling of great weakness and exhaustion. For eight months the catamenia had not been regular; there was frequent epistaxis, but no emaciation. The bronzing of the skin was most marked about the eyelids, neck, abdomen, umbilicus, and flexor aspects of the forearms and hams. There was extreme exophthalmos; Graefe's sign was well marked; but she had no paralysis, and no affection of the optic disc or vision. The pupils were widely dilated, and scarcely acted to light or in accommodation. The right lobe of the thyroid was the larger. There were loud murmurs over the heart and in the jugular veins, but the heart was not enlarged, and the pulse was very small and feeble. He had seen three fatal cases; two had acute enteritis, and the third mitral regurgitation.

Mr. FREDERICK MASON spoke of the case of a woman aged thirty-five, in whom the eyeball was dislocated from between the eyelids by any disturbance of the eyelids; sometimes in the same case there was spontaneous dislocation.

Dr. SILCOCK described the necropsy of the case of a female, aged thirty, who died from uræmic poisoning. He found nothing abnormal in the nervous system. The muscles were in a state of fatty degeneration or rather infiltration, as the microscope showed. The cranial nerves and sympathetic ganglia were normal. The thyroid gland was enlarged, and the right lobe the larger. The interstitial connective tissue was increased, and there was overgrowth of the acinal epithelium. Dr. Cheadle had described in one case increased vascularity of the medulla and pons. Electrolysis appeared to have been of value in the treatment.

Mr. LANG read an epitome of six cases observed by Dr. J. J. Pringle and himself, in which unilateral lid phenomenon without proptosis was associated with no other evidence of Graves' disease, except slight thyroid enlargement in two of the cases. In four of these paresis of orbital muscles was present, and in three sensory phenomena (pain, scalding lacrymation, &c.) In none was there cardiac disease or disorder, nor had they ever noticed implication of the lower lid. They were inclined to consider their observations as lending support to the theory of the central origin of Graves' disease, and to regard a tonic contraction of the levator palpebræ superioris as the immediate cause of the lid phenomenon, in opposition to the well-known views of Graefe.

Mr. W. H. JESSOP said that when the eye was brought under the influence of cocaine, the palpebral aperture was widened, and distinct proptosis produced. By dropping cocaine into the eye, in a case of Graves' disease, he had intensified the exophthalmos, and made Graefe's symptom more marked.

OBSTETRICAL SOCIETY OF LONDON.

Elasticity, Retraction, and Polarity of the Uterus.—Serous Perimetritis.

A MEETING of this Society was held on May 5th, Dr. Potter, President, in the chair.

Dr. SAMUEL SLOAN (Glasgow) showed Graduated Uterine Dilators and also Graduated Dilators for the Female Urethra.

Dr. J. MATTHEWS DUNCAN read a paper on Elasticity, Retraction, and Polarity of the Uterus. Retractility has been defined as that property of the uterine tissue in virtue of which the womb emptied of a part, or of the whole, of its contents, acquires a greater thickness of wall at the same time that its volume and its capacity are diminished. It is a function of muscular tissue, and it gets only a little supplementary aid from elasticity. The elasticity of each of the three layers of the uterine wall was discussed, as it exists in healthy and in morbid conditions. Retraction is not merely a condition, it is a force. During pregnancy it is a mere tonic tightening. In labour its action is necessary. In labour there is inhibition of it in the circular fibres of the lower segment of the uterus, and in the whole cervix and vagina. Retraction implies expulsion of contents; but the retraction is not necessarily in proportion to the advance of contents. There is probably an essential difference between contraction and retraction. Each may go on without the other. The usual comparisons of the action of the uterus and of the heart were criticised, and a new comparison suggested between the whole of pregnancy and a diastole and the whole of labour and a systole. The expulsion of a fibroid was cited in corroboration and illustration. Cases of morbid retraction and of morbid absence of retraction were mentioned. Ergot causes retraction and not contraction, and hence its failures, its injuries, and its benefits. John Williams describes the retraction of menstruation. Uterine polarity, described by Reil, and redescribed by Champneys, was referred to, and illustrations of its action given.—Dr.

GALABIN agreed with almost the whole of the author's description of retraction of the uterus. He was surprised to see it stated, however, that ergot produced only retraction, and not contraction. If this were so, then the general opinion that in some cases ergot acts as an oxytocic and hastens delivery or completes it when nature cannot must be wrong. Rupture of the uterus occurs in some cases of obstructed labour after the use of ergot, intense rhythmical pains having preceded the rupture. In such cases he did not think rupture could be accounted for by continuous tension and pressure due to retraction having weakened the vitality of the tissue. Perhaps the explanation was that Dr. Duncan refused the title of contraction to that kind of contraction which was the initial stage of retraction. Such a use of the words could not be maintained. By contraction he understood shortening and thickening of the muscular fibres; by retraction, a similar shortening and thickening, not followed by relaxation and lengthening, but leaving a permanent shrinking after the tension of the contraction had passed off. Retraction was contraction and something more. The contraction itself was identical in the two cases. Thus in post-partum hæmorrhage the contraction was the same whether it was followed by relaxation and renewal of hæmorrhage or ended in retraction and arrest of hæmorrhage. He believed that ergot had the power of intensifying both effects in variable degrees in different cases—both the initial rhythmical contraction and the subsequently persisting tonic contraction which maintained the shrinking produced by it.—Dr. HORROCKS said elasticity of muscular fibre, though nearly perfect, is not sufficient in amount to diminish the size of the uterus after labour; with removal of the stretching force muscular fibre regains its normal size. Retraction means contraction not followed by relaxation. A contracted muscle feels hard, a retracted one does not. Retraction after parturition is probably due to the absence of sufficient force inside the cavity to stretch the fibres to their former length. Polarity of the uterus is merely a part of the great general question of relaxation of opponent muscles. He illustrated this by reference to various groups of muscles; relaxation of the fibres of the cervix during the contraction of those of the fundus is merely one example of the general law. He then discussed reflex tone of muscles, and pointed out that in defecation, micturition, and parturition there is a reflex tonic contraction kept up in the muscular fibres, especially in the sphincters. The contraction of the sphincters can be inhibited, and the nerve-centres for inhibition are closely associated with those for contraction. Defecation, micturition, and parturition can take place independently of volition, or even of consciousness. The will has, however, a modified power over them, and can help to start them. Finally, ergot will cause contraction of muscular fibre, because it has been given successfully many times to bring on premature labour.—Dr. CHAMPNEYS had difficulty in accepting the teaching that ergot produced retraction. He did not believe that it produced true contraction, neither did he believe that it produced true retraction. Ergot often produced a contraction of limited extent, and then tetanus, the organ contracting and then remaining of the same size, but hard and rigid. This was rather tonic contraction than retraction. With regard to polarity, the action of opponents referred to by Dr. Horrocks was exemplified in the uterus by conditions involving a disturbance of the normal condition, in which consentaneous, though opposite, action was observed in the upper and lower poles, such as incarceration of the placenta after pains and some forms of dysmenorrhœa, conditions analogous to colic in other hollow muscular viscera, the pain being due to violent opposition instead of normal yielding of one muscle to another.—Dr. SLOAN (Glasgow) thought it must be admitted that retraction differed from contraction, for after the uterus was quite emptied we found in the intervals of the pains free from tonic contraction the uterus smaller—i.e., retracted. He thought morphia was the exact opponent of ergot in its action on the lower segment of the uterus. It caused inhibition of this segment, and thus accelerated dilatation. He suggested that great mental distress, as in unmarried women, by preventing healthy retraction, favoured absorption and puerperal fever.—Dr. BROWN said that light might be thrown on the question as to whether ergot caused retraction or contraction by noting its action in small doses in threatened abortion, or in preventing habitual abortion. In the former its use stops the uterine contractions if not too far advanced, and in the latter the habitual tendency can be cured. On the principle of the double action of medicines, these facts may elucidate the point at issue.—Dr. ROPER remarked on the difficulty of separating contraction from retraction. Retraction could not occur without antecedent contraction. At the end of a contraction of a uterine muscular fibre there was no return to the original state or to relaxation, as in a voluntary muscular fibre. The first effect of ergot was to cause contraction; then followed traction, according to the potency of its stimulation. Ergot interrupted the rhythm and caused tonic spasm both in the body and cervix. It seemed questionable whether it directly stimulated the fibres of the cervix or whether it interrupted their inhibition.—Dr. PERIGAL remarked that ergot seemed to expend its action on the lower segment and affect the fundus but little.—Dr. DUNCAN, in reply, said he could not recognise in ergot the power to induce labour or abortion except in an indirect and uncertain way. It was common to hear of great pains induced by ergot, but he had not met with them. We much wanted a medicine which had that power; it was a want not yet supplied.

Dr. AMAND ROUTH related a case of Serous Perimetritis. The disease was brought on by a chill during menstruation, in a woman aged twenty-seven, suffering from subinvolution and its consequences. The uterus was fixed and there was bulging downwards of the pouch of Douglas with two fluctuating points. Each was aspirated, 3½ oz. and 1½ oz. of clear serum being drawn from them. The intestines were matted forming a large hypogastric tumour which varied with their distension. The patient speedily recovered after the aspiration, but had a slight relapse at her next menstruation, the temperature rising to 100° F. The researches of Dr. M. Duncan and J. Williams tended to the opinion that these cases were more common than is supposed and were often diagnosed as hæmatocele. The diagnosis between serous and purulent perimetritis was only certain after aspiration.—Mr. BURTON'S theory that these effusions were due to pelvic hæmatocele was opposed to the author's opinion that they were due to physiological congestion of the uterus during menstruation being changed into inflammation (metritis) by a chill, such inflammation spreading by continuity of tissue either along the Fallopian tubes, or through the uterine tissue to the peritoneum. Extreme cases of bulging of the pouch of Douglas were alluded to, caused, as Dr. John Williams has shown, by adhesive lymph fixing the intestines above and so preventing the serous fluid rising up into the pelvis.—Mr. DORAN said the case tended to prove the true signification of the term "serous perimetritis." Some irritant material from the tubes or elsewhere set up peritonitis, the uterine tubes and intestines happened to adhere in such a manner as to cut off a segment of the peritoneum. This was the first essential condition. The inflammatory process not being of a low type, serum instead of pus was poured out into the portion of peritoneum shut off from the general cavity. This was the remaining essential feature in that accidental variety of pelvic peritonitis, conveniently termed "serous perimetritis." He could not understand Dr. Routh's theory about the share which the posterior layer of the broad ligament might take in this disease. He described the actual anatomical relations of the parts, and pointed out that they explained the rapid matting of the ovary tube and broad ligament in such cases, but in some the intestine might displace the tube and come into contact with the broad ligament and adhere to it.—Mr. THORNTON wished to emphasise the remarks that had been made as to the inflammation forming serum instead of pus, and to point to the analogous conditions frequently seen in the pleura. If advantage of this knowledge were not taken and the serum evacuated, then tension would lead to suppuration and its attendant dangers. But in the earlier reports of these cases aspiration and tapping usually led to suppuration and death, just as removal of serum from the pleura used frequently to end in empyema and death. The great fact brought out by Dr. Routh's case was that, properly performed, aspiration of the serum in these cases ended in speedy cure, just as did the removal of serum from the pleura in the present day usually end in cure. The difference in the result was to be found in the careful antiseptic management of the operation. Dr. Routh cleansed the vagina with corrosive sublimate lotion and packed it with iodoform gauze; hence the speedy cure. Had he with his aspirator introduced putridity into the peritoneal sac, suppuration, instead of cure, would have resulted.—Dr. A. ROUTH said a few words in reply, and the meeting adjourned.

EPIDEMIOLOGICAL SOCIETY.

Dissemination of Scarlet Fever by drinking the Milk of Diseased Cows.

A MEETING of this Society was held on Wednesday April 14th, Dr. Dickson, President, in the chair.

Dr. JAMES CAMERON read a paper entitled, "Observations on a certain Malady occurring among Cows at a time when the Milk produced by them disseminated Scarlet Fever," of which the following is an abstract. The author began by stating that he proposed to lay before the Society a short description of a cow disease which had been the subject of investigation by Mr. W. H. Power, Dr. Klein, and himself during a recent inquiry into an outbreak of scarlet fever which occurred in certain districts in London and in Hendon amongst consumers of milk derived from a dairy farm situated within his sanitary district. It was not his intention to discuss the circumstantial evidence which led to the discovery of this disease amongst the cows, or which proved its connexion with the milk. These were respectively in the hands of Mr. Power and Dr. Klein. The disease is certainly not a new one; it has been known to some farmers and cowkeepers, at any rate, as a catching malady under the designation of sore teats, blistered teats, and the like; but it has never hitherto been recognised or described as a specific contagious disease amongst cows, or considered to have any concern with the causation of scarlet fever in the human subject, and has commonly been regarded as a malady of little importance. After giving an account of the farm, and speaking favourably of its sanitary condition, the author stated that the disease first appeared in some newly purchased cows, which had arrived about a fortnight before the first cases of scarlet fever occurred among consumers of the milk. It was subsequently ascertained that one of these cows, which was the first sufferer, introduced the disease into the herd, the malady spreading from shed to shed until the whole herd of 100 cows, with very few exceptions, was attacked; while, coincidently with the spread of the disease among the cows and into the various sheds, scarlet fever made its appearance, and continued to prevail among the consumers of the milk procured from these sheds. Dr. Cameron described the disease generally as a specific contagious disease, occurring usually in the first instance amongst newly calved cows, and capable of being communicated to healthy cows by direct inoculation of the teats with virus conveyed by the hands of the cowman. The disease may continue from four to six weeks, and is characterised by general constitutional disturbance, a short initiatory fever, a dry hacking cough, sometimes quickened breathing, sore-throat in severe cases, discharges from the nostrils and eyes, an eruption on the skin round the eyes and hind quarters, vesicles on the teats and udder, alteration in the quality of the milk secretion, and well-marked visceral lesions. The author then proceeded to discuss the symptoms in detail, and, referring to the eruption on the teats and udder, stated that from five to seven days after the commencement of the illness one or more teats became much swollen, and vesicles or bullæ shortly make their appearance upon them. These vesicles are usually rubbed and broken in milking, leaving sores with raised ulcerated-looking edges; at this period the disease appears to be easily conveyed to other cows. Shortly after the vesicle has been broken a brown scab forms upon the sore, and this may remain from ten days or a fortnight to five or six weeks, a thin discharge escaping from beneath it until the sore is healed. There is a tendency for the milk to become ropy during the illness, but this is not always present, and as a rule this condition is not apparent until the milk has stood for five or six hours; hence the milk from this farm was distributed before this peculiarity had had time to show itself. After describing the differences between cow-pox and the disease in question, Dr. Cameron urged the necessity for the examination of cows and for the removal of all suspected animals from the milk business, and he expressed the hope that the Government would see fit before long to institute some means of more effectually protecting the general public against the recurrence of these disastrous outbreaks of disease which are due to milk.—In the discussion which followed, the President, Drs. Murray, Pringle, Hicks, and Saunders, and Messrs. Barham, Smee, and Shirley Murphy took part.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

THE second annual general meeting of the Medical Officers of Schools Association was held at the rooms of the Medical Society, Chandos-street, on Thursday, May 6th. The chair was taken by the President, Dr. Fuller; and, the minutes of the last meeting having been read and confirmed, the report of the Council was presented, and adopted on the motion of Dr. Alder Smith, seconded by Dr. Brett. The report alluded to the resignation of Dr. Diver, which had been accepted by the Council. Dr. Fletcher's paper on the Management of Athletics in Public Schools had been published by Mr. Lewis, and copies had been sent to each member of the Association and to the head masters of the public schools. Sir Andrew Clark, Bart., consulting physician to the East London Hospital for Children, and William Scovell Savory, Esq., F.R.S., surgeon to Christ's Hospital, had been elected members of the Association by the Council on Feb. 10th.

The following gentlemen were then elected members of the Association:—Dr. Batterbury, medical officer to the Berkhampstead Grammar School; Dr. Hetherington, medical officer to the Ipswich Grammar School; Surgeon-Major Pratt, medical officer to the Royal Military Asylum, Chelsea; Dr. Edward Penny, medical officer to Marlborough College; Howard Marsh, Esq., senior surgeon to the Children's Hospital, Great Ormond-street; and F. W. Salzmann, Esq., medical officer to St. Mary's Hall School for Daughters of Clergymen, Brighton. Dr. George Buchanan, medical officer of the Local Government Board, was elected as an honorary member.

The audited accounts, which exhibited a satisfactory balance in the hands of the Treasurer, were then presented and adopted.

The following gentlemen were elected as officers for the year 1886–7:—President: W. S. Savory, Esq., F.R.S. Vice-Presidents: Sir Andrew Clark, Bart.; Dr. Farquharson, M.P.; Dr. Fuller; Surgeon-Major Evatt. Treasurer: Noble Smith, Esq. Hon. Secretaries: Dr. Alder Smith; Dr. Chas. Shelly. New members of Council: Henry Armstrong, Esq. (Wellington); Brudenell Carter, Esq.; Shirley Murphy, Esq.; Dr. J. Ellison (Eton).

A vote of thanks to the retiring President, Dr. Fuller, was proposed by Mr. Carter, and carried with acclamation.

Dr. Fuller, in reply, briefly reviewed the history of the Association, which now numbered eighty-three members, and quoted instances in which the results of its labours had already proved useful to members of the profession as well as to the public; he was glad to welcome Mr. Savory as his successor in that chair, because he was a man whose position at the head of the Association could not but add prestige to its labours and authority to its conclusions.

Mr. Savory accepted the presidency as a special compliment from the members of the profession who knew him best, and the more gladly because he could thoroughly assent to the purposes for which the Association was founded. He knew that the Association had already done good work, that it was now doing good work, and he believed that it would do still better work in the future by the attention which it directed to the prevention of disease in its endeavours to discover the causes which provoke it.

Dr. Haigh Brown then read a paper on the "Causation of Follicular Tonsillitis." In the course of the discussion which followed the reading of the paper, Mr. H. Armstrong argued against the contagious nature of tonsillitis. Dr. Fyffe, Dr. Brett, and Mr. Statham were not prepared to admit the contagiousness of the disease, while believing that many cases had an insanitary origin. Dr. Alder Smith took a similar view, and considered that it would be a very serious thing if every case of follicular tonsillitis must be isolated on the ground of avoiding the spread of the disease. He agreed with Dr. Fyffe and other speakers in recognising at least three types of the malady, but they were certainly not always easy to differentiate: a persistent albuminuria he should regard as evidence of diphtheria, even in the absence of other specific symptoms of that affection. After Dr. Haigh Brown had replied in detail, the President proposed a hearty vote of thanks to him for a valuable contribution to an important subject, which was unanimously accorded. The members subsequently dined together at the Holborn Restaurant.

ACADEMY OF MEDICINE IN IRELAND.

Villous Disease of Kidney and Rupture of Heart.—Cancer of Liver.—Spontaneous Rupture of Heart.

AT a meeting of the Pathological Section, held on Feb. 12th,

Dr. THORNLEY STOKER exhibited the Kidneys and Heart removed from the body of a gentleman who had recently died at about the age of seventy-two years. For ten years preceding his death he had suffered from occasional attacks of renal colic and hæmaturia. The loss of blood at times had been enormous, and the length of the hæmorrhages had varied from a day or two up to ten or twelve days. A post-mortem examination showed that the immediate cause of death was rupture of the left ventricle of the heart, due to fatty degeneration and hæmorrhagic infarction of its anterior wall, the result of embolism of the anterior coronary artery. This and other diseased conditions of the vascular system were evidently secondary to kidney disease. The left kidney was the seat of chronic nephritis, and its sinus contained two oxalate of lime calculi as large as hazel nuts. The right kidney weighed 1 lb. 7 oz.; its substance had almost disappeared, and was replaced by a number of spaces filled with blood-clots in different stages of formation—some being old and well-formed, while others were recent and scarcely solidified. The pelvis of the ureter was filled with thin stirabout-like matter, which proved to be disintegrated blood. The specimen had then been carefully reported on by Dr. Alex. M'Kee, who discovered in the sinus, infundibula, and calyces of the kidney extensive villous growths, presenting the usual dendritic character.—Dr. JAMES LITTLE said he had watched the patient for the last ten years, although he had not seen him for eighteen months before his death. He had been during ten years subject to the attacks of hæmorrhage. What usually happened was, that when going home in the afternoon from his office he would begin to feel pain, which usually came in the left loin, but sometimes in the right. He used to get into bed as quickly as possible, and the pain usually got worse and worse, and went down towards the groin and into the testicles, and had all the characters—as he was informed, for he never saw him while suffering from one of those attacks—of renal colic. Morphia never relieved him unless it was administered in such quantities as to stupefy him. The only thing that benefited him was a very hot application to the loins. The pain usually lasted twelve hours, and sometimes longer. Whenever he had pain he always had hæmaturia, but occasionally he had hæmaturia without pain.—Dr. J. W. MOORE said the present case proved that renal colic was produced by the passage of blood-clots. An instance of this recently came under his observation in the Meath Hospital. Another point of great interest was illustrated by a case which he saw a year and a half ago. It was that of a gentleman aged sixty-nine, who had for many years suffered from gout in his system, and who had been in the habit of passing quantities of oxalate of calcium in his urine. He was of active habits, and was suddenly laid up with an attack of pneumonia. His convalescence from this was protracted, and he had to give up all active exercise. He was a good horseman, and had been in the habit of taking daily exercise on horseback. When his convalescence was fully established he went out riding one day, and came home with a great desire to micturate. On doing so he was horrified to find that what he passed was almost pure blood. He sought advice, but in a very few hours his urine became perfectly limpid and pure. He (Dr. Moore) examined the bloody and also the pure urine, and found both to contain large quantities of calcium oxalate, the microscope showing them to be full of the calculi. He made a good recovery, and was not troubled with bloody urine afterwards. There was no pain in his case, because the calculi were not large.—Dr. DUFFEY thought they should look for something more than fatty degeneration in order to account for the rupture of the heart. He did not hear whether Dr. Stoker had said that there was fatty degeneration of the muscle of that organ; but if fatty degeneration *per se* had been the cause of this rupture, then they should meet with ruptures of the heart more frequently.—Dr. HENRY KENNEDY said that in cases of this kind hæmorrhages were commonly quite independent of both the kidneys and the heart. He had seen a number of cases of persons subject to fatty degeneration, in which fat existed in large quantities all over the body, and the individuals were subject to terrific fits of epistaxis, and yet afterwards made perfect recoveries for the time being. He looked on it as almost a necessary condition in those cases that hæmorrhages would occur independent of the state of the kidneys. He thought this gentleman must have had the gouty poison in him, and that it was relieved from express determination to the feet or elsewhere by these hæmorrhages.—Dr. STOKER, in reply, said he looked on these hæmorrhages as depending on a male change of life.

Dr. JAMES LITTLE exhibited and discussed a specimen of Cancer of the Liver. On Jan. 1st a lady's nurse-tender, aged forty-four years, was brought to the Adelaide Hospital suffering from profuse hæmoptysis. She had always been a delicate woman, and during the past year particularly so, the chief ailment from which she suffered having been pain in the epigastrium, brought on by eating solid food. The existence for twelve months of the epigastric and interscapular pains, and the circumstances of their having grown worse during the last three months, and of their having been particularly bad on the day preceding the hæmorrhage, seemed to him sufficient to justify the diagnosis of an ulcer in the stomach. Another circumstance tending to the same conclusion was that the blood was very bright in colour, and not of the dark colour that usually came from the stomach. She only lived twenty-four hours after her admission, and had several profuse hæmorrhages before her death. On post-mortem examination the stomach was found to be quite healthy, with the exception of a patch near the lesser curvature, about the size of half-a-crown. The liver weighed 4 lb.; almost the whole of the right lobe was occupied by one large mass, which presented in places a white and in places a yellowish-brown colour, and which was very firm and dense, cutting almost like cartilage. This mass was bounded by an abrupt line of demarcation from the rest of the liver. The remainder of the liver, consisting mainly of the left lobe, was very tough, and presented the characters of cirrhosis. The vena porta was filled with a soft dark thrombus. On microscopic examination the mass in the right lobe of the liver was found to be cancerous in nature, consisting of loculi of firm fibrous tissue, completely filled with polygonal-shaped cells.

Dr. FOOT communicated a case of Spontaneous Rupture of the Heart. The subject of the event was a car-driver, sixty-six years of age, admitted to hospital exactly a fortnight before his death, complaining simply of weakness and shortness of breath. He said he had been only ailing a week before admission. At the time he came under observation his feet and legs were œdematous, the action of the heart weak, slow, and unequal, his colour pale, and the skin of a satiny smoothness. His appetite was good, and urine free from albumen; and under the use of rest, meat, and wine, with tonic doses of digitalis and nux vomica, he frequently said he was daily gaining strength, but never showed any inclination to leave his bed. He slept a great deal, and often had to be aroused when the class came round. His sleep was never of a lethargic or comatose variety. On the morning of Feb. 9th, 1885, he was found dead in bed. There was no indication of any discharge from the stomach or bowels having taken place, nor was there any disturbance of the bedclothes. The distended pericardium, when slit open, gave exit to blood-stained serum, and contained twelve ounces of jet black coagulum, part of which was connected with a longitudinal rent in the anterior surface of the left ventricle, midway between the apex and base and close to the septum ventriculorum. The pale, soft, and greasy muscle of the heart had obviously been the seat of fatty degeneration, the condition which, above all others, predisposes to rupture.—The PRESIDENT (Dr. T. E. Little) remarked that a feature in this case was the very large size of the rupture; and its occurrence under the circumstances described, during sleep and without any muscular exertion, was rather unusual. Ruptures of the heart were generally longest at the inside, and passing obliquely outward towards the pericardial surface until they formed a pretty small rent at the outside; and this was an argument in favour of what Dr. Stoker had, in connexion with his case, indirectly put forward—namely, that rupture of the heart in many cases took place gradually.

Dr. WALTER SMITH exhibited the Viscera taken from a man who died of cardiac disease.

Reviews and Notices of Books.

The Insane in the United States and Canada. By D. HACK TUKE, M.D., LL.D. London: H. K. Lewis. 1885.
Statutes of the United States, and of the several States and Territories, relating to the Custody of the Insane. By C. F. FOLSOM, M.D. Philadelphia. 1884.

DR. TUKE'S book is chiefly composed of the impressions received during a recent tour among the asylums of Canada and the States. He has added thereto much useful information in regard to the existing provisions for the insane, and in a chapter devoted to Dr. Rush, the father of American psychiatry (whose portrait serves as a frontispiece to the work), a history is given of the treatment of the insane in the United States. Of Dr. Rush, who died in 1813, aged sixty-seven, the author records that he used restraint-chairs, privation of food, shower-baths of fifteen minutes' duration, and in extreme cases the fear of death, or terror, &c. He recognised, however, the value of employment, sympathised with Pinel and Tuke, advocated separate establishments for dipsomaniacs, and recognised moral insanity. Rush held that the bloodvessels of the brain were the primary seat of insanity, and consequently used blood-letting extensively as a remedy—in a quoted case to the extent of 200 ounces in fifty-six days.

Pennsylvania appears to have been the first of the States to establish an insane hospital at Philadelphia in 1752; Virginia followed in 1773; yet it was not until 1832 that the provision of treatment for all insane persons was regarded as a State duty, and after this date asylums multiplied rapidly. Dr. Tuke gives a list of ninety-four now existing. The total number of insane in 1880 was 91,950, yielding the proportion of 1 in 369 of native whites, and 1 in 237 of foreign whites above the age of fourteen years. In asylums were 40,992, of whom 5·4 per cent. were reported under restraint by camisole, muff, strap to bench, handcuff, ball and chain, crib bed, &c. The crib bed is probably not regarded as restraint by many physicians, and not recorded as being so. In some asylums no restraint whatever is used, but in illustration of the possible abuse of the crib bed, the author points out that one asylum possessed fifty. Padded rooms are very rare. Suicides formed 1 per cent. of the deaths. Epileptics are not aggregated as a rule. Medical treatment presents little for special comment. Dr. Tuke concludes that English lunatics are more difficult to manage than American, and that general paralysis is less common among the latter. Out-of-door life and employment is less resorted to than in England. The American asylums have the advantage of being of moderate size, so that the possibility of individual interest in the patients and their treatment is ensured, and rendered more probable by the larger medical staff employed, this being 1 to 150 patients, as compared to 1 to 300 in England. Many of the assistant medical officers are married men, and it is asserted with probability that better men are thus attracted to and retained in the service; these assistants are also more liberally paid than with us. In several asylums lady physicians are on the staff. The dietaries strike Dr. Tuke as being more liberal and varied than those of British asylums. Segregation in the care of chronic lunatics is being carried out at Kankakee, and elsewhere, and appears to be satisfactory in regard to comfort and economy.

Dr. Tuke briefly summarises the lunacy legislation in regard to admission to asylums, which is the most important part of Dr. Folsom's dry and uninteresting work. At the same time Dr. Folsom must be credited with having discharged an unthankful office in condensing with perspicuity a heap of very unattractive procedures, only to be regarded as legal experiments on insanity, which is manifestly considered as a *corpus vile*. The simplest admission procedure obtains in Connecticut, where a request by a friend, with a medical certificate, suffices. In other States, as in Pennsylvania, two medical certificates, sworn before a magistrate, are required. In other instances, as in Massachusetts, a judge must *certify* that "*he* finds the person committed is insane and fit for treatment in an asylum." Admissions are, however, permitted on emergency certificates. Lastly, as in Illinois, admission is only possible after *trial by jury*. The sketch which Dr. Tuke gives of this last procedure justifies the illimitable use of expletives in regard to it which one of the alienist physicians of the State applies unsparingly. More revolting inhumanity can scarcely be conceived than the illustration quoted from Mr. Wines, the Secretary of the Illinois Board of Public Charity. Notwithstanding all these precautions, thirteen persons sent last year to the Utica Asylum were declared not insane, an emphatic warning of the imperfect protection afforded by magisterial intervention.

Dr. Tuke records that the managers of one of the State asylums of the highest repute complains of the want of confidence and of the suspicion of the public. The author might have added to this the recent endorsement by an American judge of the quotation from Harrison, that "every superintendent of a hospital desires the wards to be full, and where the inmates are pay patients there exists a temptation to detain them."

Dr. Tuke's book is interesting in spite of its innumerable facts and statistics, and is valuable alike as a book of reference and from its suggestiveness. It will probably be as warmly welcomed across the Atlantic as here, being remarkably free from any prejudice that could offend American critics.

The Mammalia in their relation to Primeval Times. By OSCAR SCHMIDT. (The International Scientific Series, Vol. LIV.) With 51 Woodcuts. Pp. 308. London: Kegan Paul, Trench, and Co. 1885.

THIS work may be regarded as an exposition of the theory of descent illustrated by examples drawn from each of the orders of mammals that possesses a palæontological history. The dominant feeling and idea of the author may be gathered from a single paragraph. He traces the history of the horse and its descent from the Palæotherium, or three-toed horse, through the Anchitherium and Hipparion in Europe on the one hand, and of the parallel, but more perfect, series in America of Orohippus, with four toes; Mesohippus, with three complete and one rudimentary toe; Miohippus, with three toes; Protohippus, with two rudimentary and one fully developed toe; to the horse, with one toe and traces only of the two others,—and then remarks that, whilst Owen looks upon this as a providential transformation designed for the benefit of mankind, he looks upon it as an adaptation of the limbs of these animals to the formation of the ground and to the incoming of plains which originated during the Tertiary period. Schmidt assigns the credit to D'Alton of the doctrine of adaptibility generally ascribed to Goethe—the doctrine that "form conditions the life and acts of the creation, whilst each fashion of life with reflex forcible action works on the form." He dwells on the phenomena of convergence whereby animals placed under similar circumstances have a tendency to resemble each other in the modification of their organs; and we need hardly add that he considers in their main bearings the palæontology and embryology of the monotremes and marsupials, the edentata and whales. The work is well worthy of perusal by all those who wish to make themselves familiar with the present aspect of science in regard to the theory of evolution.

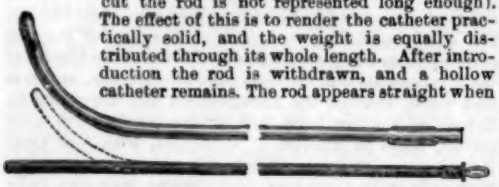
The Asclepiad. No. 10, Vol. III.

THE article on the Cardiac Pulmonic Balance is most originally thought out by Dr. Richardson, and well worthy of perusal. "The Poverty of Wealth" is an amusing narrative, showing that the motto of the *Journal of Public Health and Sanitary Review* ought to have been "National Wealth is National Health," and bearing generally on the value of hygiene and sanitation in promoting health. Antonio Scarpa is the subject of the biographical notice and portrait. "The life of Scarpa is eventful only through his labours. He is from the beginning to the end of his career the professor; his genius, observation; his force, industry; his fame, purity—purity in exactitude, patience, exposition, initiative, direction." In the *Opuscula Practica* there is a page or so on a "Proper Temperature for Mental Work." Here it is stated that if the temperature be unequal, study is unequal; and that the best degree of temperature for mental work is 64° F. or 18° C. If the temperature falls much below this, there is a relaxed state of body and mind, which soon leads to fatigue and exhaustion. No doubt Dr. Richardson is right, but we think allowance should be made for idiosyncrasies. We are not all gifted with the perennial energy of the author of *The Asclepiad*, and it is most likely that some of our dull brains are incapable of experiencing the variations in surrounding temperature in the manner above alluded to. Likewise we are disposed to join issue with the author in thinking, *with* the poet Cowper, that composition is rather exhausting in its nature.

New Inventions.

A SOLID CATHETER.

THE instrument shown in the woodcut is intended to combine the weight of a solid metal bougie with the advantages of a catheter. It consists of a silver catheter, into which, in place of the ordinary stylet, a soft metal rod fitting the tube is passed right up to the end (in the woodcut the rod is not represented long enough). The effect of this is to render the catheter practically solid, and the weight is equally distributed through its whole length. After introduction the rod is withdrawn, and a hollow catheter remains. The rod appears straight when



withdrawn; but in the catheter, owing to its softness, it follows the curve as dotted in the woodcut. As an instance of the difference of weight made by the rod, I have weighed a No. 9 catheter, selected at random from my set, which weighs without the rod 6½ dr., and with the rod 15 dr. The rods can easily be fitted to any metal catheter.

VALENTINE MATTHEWS, M.R.C.S., L.S.A.
Suffolk-street, Pall-mall, S.W.

A NEW DISINFECTOR.

WATERCLOSETS should require no disinfection; they should be so constructed that their contents are completely removed, and that they are thoroughly cleansed and filled with clean water. The use, therefore, of a disinfector presupposes a defective apparatus, which should be exchanged without delay for one more perfect; but if circumstances should render this impossible, and the best have to be made of faulty apparatus, the use of a disinfector is then necessary. Mr. H. E. Pollard, of Duke-street, Adelphi, has sent us the Sweet Home Patent Disinfector which is an ingeniously constructed receptacle made of earthenware, and containing permanganate of potash crystals; it is intended to be fixed within the pan as close to the flush as possible, and on each occasion of use of the closet water passes into the disinfector and washes round the pan of the watercloset solution of permanganate. It has the advantage of being very simple in its construction, and gives no opportunity for the retention of dirt, and will be found useful under the circumstances we have mentioned.

HEALTH OF CAVALRY HORSES.

THE very satisfactory condition of the horses, as shown in the Annual Statistical Report of the Army Veterinary Department for the year ending December 31st, 1885, reflects great credit upon the branch of the service so ably and efficiently conducted by Mr. Fleming. It appears that the average strength of the horses employed in the United Kingdom during the year was 11,778; the admissions into hospital from sickness and injury amounted to 589 per 1000; the deaths to 18·7; the number "cast" to 91·0; and the constantly non-effective from sickness or injury to 38 per 1000 of the strength. The admissions and casting were considerably lower, but the death-rate was 1·5 per 1000 higher than in the preceding year. The table showing the average number of days each horse was ineffective is a valuable addition to the return. The reduction in the number of cases was most marked in those from skin disease, sprains and accidental punctures, contusions, contused and punctured wounds, and collar-chain gall. There was a considerable increase in the cases of catarrhal fever, influenza, and strangles. The two classes—diseases and accidents of the locomotory apparatus, and surgical diseases and accidents—furnished upwards of three-fifths of all the admissions, and together amounted to 366 per 1000 of the strength. The increase in the mortality compared with that of 1884 was chiefly due to an outburst of glanders and farcy among the horses of the 5th Lancers after their return to England from Suakim, where the diseases are believed to have been contracted. The regiment arrived in England on June 13th, and on the 15th the first case of glanders was reported; between that date and July 11th 7 cases of farcy and 4 of glanders occurred; since then the regiment has been entirely free from the disease. Mr. Fleming observes that "to the prompt and energetic measures adopted (immediate destruction of the diseased, complete segregation of those presenting any suspicious symptoms, close inspection of every horse two or three times a day, picketing out in the open a horse's length between each horse, and the most scrupulous care with regard to watering, cleansing, disinfection, &c.) must be ascribed the wonderfully rapid 'stamping out' of what threatened to be a most serious invasion of glanders." Only one other case of glanders occurred during the year, in the Royal Artillery at Shorncliffe; it was "due to infection brought into the barracks by an officer's private horse kept in a stable attached to his house." Prompt measures were at once taken, and the disease did not spread. The most fatal class of diseases was that of the respiratory apparatus, which gave rise to 60 deaths, or upwards of a fourth of the whole mortality; and next to it stand diseases and accidents of the locomotory apparatus, by which 58 deaths were caused.

An interesting table is given of the admissions and deaths by ages, which shows that the highest percentage of sickness occurs among the five-year-old, and next to it among the four-year-old horses, while the highest death-rate under fifteen is among the four-year-olds. Among the causes of casting "old age" furnishes much the largest number, 457 out of a total of 997 being returned under that head, but no information is given as to the exact ages of the horses so "cast." We would suggest that the addition to Table G. of a column for the "casting" would add much to its value. The average price realised for "cast" horses was only £9 19*s.* 1*d.*, being £1 6*s.* 1½*d.* less per horse than in 1884, a result probably due to the depression in trade and agriculture. Mr. Fleming has given us a very interesting report, in which he has gone more into detail than previously, and we most sincerely congratulate him and his staff upon the successful result of their labours which he has been able to record.

THE LANCET.

LONDON: SATURDAY, MAY 15, 1886.

WE were pleased to hear from Sir JAMES PAGET on Wednesday, the 12th inst., when addressing the students and their friends after the presentation for degrees, that there was a great hope of such modifications being introduced into the University as would fairly meet the views of those who pressed for the establishment of a Teaching University in London, and who were not content with a mere metropolitan examining board. He indicated, as we think quite rightly, that such alterations must be by way of addition to the present system, rather than by fundamental changes therein. The programme of the University has been steadily maintained as an institution for the chosen few from everywhere during an existence of fifty years; for next year will be its jubilee, and, as Sir JAMES PAGET pointed out in his able and interesting speech, it has justified its existence as an examining board and by its indirect effect on education so completely that it would be unwise, and indeed impossible, for it now to make a complete change of front and become a local university only. Local teaching institutions might be more closely affiliated to it, and local teachers more closely identified with it, without altering the world-wide influence it now exercises through its examinations. The fear of lowering its standard of merit is always put forward as the one argument against reform; but it is absurd to suppose that it ever can become, or is expected to become, an institution whence all who desire degrees, medical or otherwise, are to obtain them on easy terms. Average degrees for medical students in London must be granted by the corporations. But increased facilities for obtaining degrees, internal reforms giving a substantial recognition and power to teachers are still demanded from the University authorities, and are quite beside any question of lowering the standard. We may refer to one or two examples to show their necessity. The fixing of two preliminary scientific examinations in a year was only obtained after years of agitation, and was brought about by the influence of the teachers only, and in the teeth of a strong opposition led by the examiners in science, and encouraged by most of the then members of the Senate. Indeed, if the Vice-Chancellorship had not fallen to such a man as Sir J. PAGET, on the death of the late Master of the Rolls, we doubt if the additional examination would have been in existence now. Yet on its first institution in January last, 34 students presented themselves for the entire examination and 17 passed; 31 took two subjects and 22 passed; whilst 21 out of 33 candidates passed in one subject only; that is to say, 98 candidates altogether were examined, of whom 60 passed. A very large proportion of these 60 could not have spared the time and money to proceed to the degree if there had been only annual examinations. But the Senate must not stop at this; 155 candidates at the Intermediate M.B. Examination last year with a rejection of 59 call for a similar change in this examination. There is no reason whatever why these 59 should not be re-examined before the end of another year. Two Preliminary Scientific Examinations in the year must be followed by two Intermediate M.B. Examinations in the same period, and were teachers fully represented on the Senate this would quickly be arranged. Another imperative reform is a reconsideration of the regulations of attendance on lectures and hospital practice for the Final M.B. Examination, which in the present form are frequently quite prohibitory to the candidate. To pass from our own profession, we find teachers urging the institution of a degree in Engineering Science, and even hinting at a necessary modification of that almost sacred fetish, the Matriculation Examination, whilst others request complete revision of the regulations for the LL.B. degree. No such suggestions ever come from within; every change is initiated from without, and is only granted after long delays and wearisome agitation. This is simply because the authorities have lost touch with teachers and students, and we can only hope that the election of Sir EDWARD FRY and the new Senators will prove to be the first step towards the uprooting of this feeling, which has done so much to hinder the due development of the University in adapting itself to modern requirements. The position of infallibility assumed by many of its founders and older Senators cannot be too quickly abandoned.

IN a recent number we referred to an interesting paper by Dr. JAMES CAMERON, the Medical Officer of Health for Hendon, which had been read before the Epidemiological Society, and which gave account of a disease occurring amongst the cows on a farm in his district at a time when the milk which they produced disseminated scarlet fever amongst its drinkers. The Local Government Board have just published a Report by their inspector, Mr. W. H. POWER, showing the relation of this cow malady to the human disease. There has probably not been issued for many years a paper on a subject of greater importance, for upon the proof that a human disease which destroys every year thousands of lives in this and other countries has its origin in an affection of the cow must depend the means to be taken for its prevention. Until now, inquiries made into outbreaks of scarlet fever disseminated by milk had not afforded further evidence than that the disease was produced by milk which was infective from the time of leaving the farm; and although the absence of any knowledge of the means by which it acquired this property had, after careful investigation, raised a strong presumption that the cow might in some way or other be responsible, the final link has been wanting which is required to complete the chain of evidence. It is this link which Mr. POWER'S Report now supplies; but it goes even beyond this, for it shows by circumstantial evidence of the most conclusive nature that the cows upon the Hendon farm were only capable of producing milk which possessed this property at a time when they were themselves suffering from a disease which is characterised by the appearance of vesicles and sores on the udder.

It is impossible here to do justice to the admirable and exhaustive argument by which Mr. POWER supports his conclusions but we may briefly narrate the circumstances of the outbreak which his inquiry brought to light.

The story is of a farm having three sheds, the milk from these sheds being received respectively by three retail vendors. Into the first of these sheds were admitted three cows newly arrived from Derbyshire, and which had been placed for a few days previously in a quarantine shed. These three cows were followed by four other newly arrived cows, which replaced the first in the quarantine shed, and were afterwards distributed, two in the first shed which had received the Derbyshire cows, and two in the second shed, where they remained for a short time and were then transferred to the first shed. Scarlet fever appeared among the customers of vendors receiving milk from the first two sheds, shortly after the admission of the newly arrived cows into the sheds with the other cows; among drinkers of milk from the first shed the disease occurred in large proportions and attacking them in increasing numbers; among the drinkers of milk from the second shed, first in small numbers, and then, after an interval, in larger proportions, the drinkers of milk from the third shed remaining free from disease until almost the end of the inquiry. Finally, a cow disease was found to have attacked the Derbyshire animals, and subsequently those which followed them, extending to other cows in the sheds in which they were placed. The appearance of the disease amongst the cows immediately preceded that of scarlet fever amongst the milk vendors' customers. The interruption in the prevalence of scarlet fever among the drinkers of milk from the second shed corresponded in point of time with the removal of the two newly arrived cows from the second to the first shed, while its recrudescence again corresponded with the appearance of disease among other cows in the second shed. The proof was already strong; but, as if to complete it, at the end of the inquiry the additional evidence was afforded of an invasion by scarlet fever of the drinkers of milk from the third shed immediately after the cows in this shed were attacked by the same disease as that which had affected the others.

In face of such evidence we are compelled to accept the conclusion that the disease of the cow was related to that of man as cause is to effect. It is true that this evidence is only circumstantial, but the correspondence in behaviour of the disease of the cows with that of the milk drinkers is too definite to have been a mere coincidence, and we have no hesitation in expressing our belief that we are at last brought face to face with the origin of scarlet fever. It is difficult not to anticipate a possible result of this addition to our knowledge of its etiology. The possibility of exterminating this disease will be at once apparent, and it is satisfactory to know that Dr. KLEIN'S services have been enlisted for the further prosecution of the inquiry on lines which the Report indicates. The consideration whether these expectations will be immediately realised must be left until Dr. KLEIN'S labours are ended and his report presented; but, under any circumstances, the facts which are already known will give fresh impetus to the study of animal in relation to human diseases.

We cannot close this article without bearing witness to the patience and perspicacity which have created these hopes. The excellence of the work of the Medical Department of the Local Government Board has long since placed this country foremost amongst those which have contributed to our knowledge of disease, and certainly no recent investigation in England better promises to maintain this high character, or to confer greater benefit on man, than that recorded in the Report of Mr. POWER here brought under review.

THE Croonian Lectures of the present year are mainly remarkable for the assiduity with which Dr. LATHAM has attempted to introduce into general medicine an intricate, though necessary, knowledge of some of the intimate chemical processes which are collectively classified under the physiologist's term of metabolism. Were we able to picture accurately the various stages of the chemical processes occurring in the normal integration and disintegration of protoplasm, we should be possessed of knowledge which it is no exaggeration to say would speedily place within our grasp the secrets of nature. As an attempt to propound some of the most important vital chemical changes, every member of the profession must fully appreciate Dr. LATHAM'S labours. But in the present state of physiological science his arguments can only be considered as more or less probably correct. Our information of the way in which a molecule of protoplasm or even albumen is built up is so vague and uncertain, that we have no solid groundwork whereon to build a superstructure. If, then, physiology is so unsettled, pathology must for all purposes be likewise indefinite. At the outset Dr. LATHAM appeals in large measure in support of his views to an ingenious analogy—first made, we believe, by PFLÜGER—between the properties of certain cyanogen compounds and those of living protoplasm. This analogy is very striking, and even if it does not actually represent the truth, it probably gives some idea of the difference between living and dead matter. It is a question of a difference in power, in potentiality. The chemical composition, the mere number of chemical atoms, is the same in urea and ammonium cyanate. Urea, however represents dead matter, more stable but less energetic than ammonium cyanate, which is the representative of living matter in that it possesses energy with instability. Dr. LATHAM suggests that albumens are structurally cyanalcohols combined with a benzene nucleus. The energy of albumens comes from their being cyanogen compounds. He shows how the various amide products of the animal economy may be built up in the laboratory by various chemical interchanges.

What is rheumatic fever? Clinically it consists in the development of various well-known symptoms. How may these symptoms be excited? We have for many years past been taught to believe that causes acting on the central or peripheral nervous system may give rise to joint changes having a close resemblance to those of subacute rheumatism. Is rheumatism a disease of the nervous system? The experiments of Dr. B. FOSTER have shown that the introduction of lactic acid into the animal economy may be followed by the production of a certain set of symptoms closely allied in appearance to those of rheumatic fever. Does the lactic acid act on the joint structures and vessels directly or through the intermediation of the nervous system? Dr. LATHAM adopts neither of these views. The Croonian lecturer believes that the *materies morbi* of rheumatism may induce the arthritic signs by its action on

the trophic centres presiding over the nutrition of the joints. Lactic acid is formed in excess, but must be regarded as a companion symptom with the other phenomena of rheumatic fever. Not that the acid itself is harmless; possibly it also induces symptoms on its own account. Dr. LATHAM fixes on uric acid as the irritant to the central nervous system in rheumatic fever. Where and how is the excess of uric acid formed? In order to follow this problem it is necessary to know that there are such bodies as amido-acids. One of these of most importance in our present connexion is amido-acetic acid, glycocoll, or glycocine. This acid enters into the formation of many important substances. By heating it and urea together uric acid can be obtained. Glycocine may be formed in excessive quantities in muscular tissue; combined with cholic acid it forms a salt of bile. The liver, therefore, secretes it thus in combination. Now, there are several other ammonia compounds—leucine, tyrosine, and taurin,—all of which are probably dealt with by the liver, which most likely converts them into urea. The capacity of the liver in this respect may vary for different ammonia compounds. Imagine that the glycocine is not transformed, or only partially so, whilst the other bodies are acted upon, then we should have urea and glycocine together; a conjunction not difficult to imagine, and which possibly actually occurs with the formation of uric acid. But there is the difficulty; such processes are possible, but have not been proved to occur. On this view the liver is the great offender; on it the "sluggish" liver of our forefathers receives a new interpretation. There are many ways, however, in which the imperfect metabolism of glycocine may be brought about. Take an ordinary febrile catarrh, in which we may suppose that there is an excessive production of amido-acetic acid (glycocine) in the muscles. It goes to the various glands of the body—liver, spleen, kidneys. Some of it gets converted into urea, and we hear no more of it. Other portions combine with urea to form uric acid, with more or less disturbance of the nervous system, according as the eliminatory organs are in good working order or not.

The vaso-motor system figures largely in Dr. LATHAM's attempts to explain feverish colds, rheumatism, &c. The vaso-motor system, as has been said of statistics, can be made to prove anything; any physiologist will grant such a proposition. The lecturer pointed out that muscles and glands have special secretory and vasal nerves; urari paralyses the former in muscle and atropine in gland. The vessels may be dilated without increasing the secretion or metabolism, but still, as a rule, vaso-dilatation means excessive disintegration or descending metabolism. Taking this as a guide, we can easily follow Dr. LATHAM through the varying effects of exhaustion, paralysis, and stimulation of the various parts, cutaneous, muscular, and glandular, of the vaso-motor system. In rheumatism the (what Dr. MOXON would call) "Secretary of State for the Vaso-motor Department" is in a condition of exhaustion—it has loosened its reins of government; the local departments therefore run riot; or, in other words, there is excessive disintegration and vascular dilatation—the consequences as regards glycocine and the like we have above considered; at the same time lactic acid is formed in excess. In rheumatism, therefore, we cannot blame the liver; it does its ordinary share of work, but too much is put upon it, hence the uric acid and morbid irritation of the nervous system. But in gout it is another matter; the liver is primarily at fault; its secretory cells are not acting up to normal, either from defective innervation or inherent weakness. It is possible that glycocine and urea may be conjugated by the renal tissue, and thus lead to the formation of the slightly soluble ammonium urate, some of which may pass away into the general circulation and be transformed into the soda salt which is deposited in the joints of gouty subjects.

The far-reaching nature of Dr. LATHAM's subject is still further witnessed by its inclusion of the kidneys, as well as the liver, nervous system, spleen, and general physiological chemistry. A good deal depends on the kidneys: if they are sound the uric acid is readily eliminated; if not, if there be renal inadequacy, then more of the *materies morbi* circulates widely, and so induces the arthritic and other symptoms of gout and rheumatism. It is easy to picture the action of the poison in the blood on the *locus minoris resistentiæ* of various individuals, or the same individual at different times, with the production of gout at the heart, at the toe, at the stomach, and so forth. The arguments in support of Dr. LATHAM's views afforded by appropriate treatment of rheumatism, gout, and diabetes by salicylic and benzoic acids and colchicum are not the least interesting part of the Croonian Lectures.

AT its last meeting the College of Physicians decided by a large majority of votes that the reformed constitution which had been drawn up by Dr. C. WEST was unnecessary for the due performance of its functions. The grounds upon which Dr. WEST based his proposals were plausible enough. Briefly stated, they were to the effect that the junior Fellows are not represented upon the Council, and that their interests have little chance to be considered in a body which contains so small a proportion of members having any direct connexion with a hospital or medical school. He proposed, therefore, that three standing committees should be appointed to deal with questions concerning (1) education, (2) professional interests, (3) public interests; such committees to consist each of two members of Council and three other Fellows of not more than ten years' standing, the members to be nominated by the Council and elected by the Fellows. The duties of these committees would consist in considering, reporting, and suggesting measures to the Council upon the various topics referred to them or initiated by them in their several departments. In that way he deemed it would be possible not only to interest the junior Fellows in the work of the College, but enable the College itself to take a more active part in many public and professional subjects than it now does. The reply of the Council to these suggestions was to the effect that the present system of appointing committees as occasion arises is preferable to any scheme of standing committees; that there already exists a Committee of Education and Examination, composed of delegates of the two Colleges; whilst the subjects alluded to by Dr. WEST as falling within the sphere of the College could be more speedily and efficiently dealt with under the present system. It was also pointed out in the debate upon the

subject that on several occasions questions have been raised by junior Fellows, many of whom have also been placed on committees where their interests are concerned. That the claims of junior Fellows have, at least for some years past, been adequately considered was shown in the fact that they did not support Dr. WEST in his endeavour to remedy their supposed grievances. In point of fact, the constitution of the College of Physicians is at the present day far more democratic than is generally supposed. Two years ago the Council received a severe check in the reference to them of a nomination list which had been framed without due consideration to the claims of certain Members to the distinction of the Fellowship; and there is no question that in the same way there will always be found means for the expression of opinion by the body of Fellows when this runs counter to the views of the Council. Indeed, the powers of the Council are comparatively limited. Except in the matter of nominations to the Fellowship, the Council, and Examinership, that body can only deal with subjects which are brought under its notice at a Comitia of the College. The Council has no power to initiate; its function is merely executive. It is open to any Fellow of the College to bring forward resolutions, and to move the reference of matters either to the Council or to a special committee. We are far from saying that there is not room for some improvements in the machinery of the College, and especially in the somewhat effete methods of election without nomination, of which an instance was seen at the last Comitia. By the resignation of Sir H. PITMAN the College was called upon to elect a representative to the General Medical Council. Every Fellow present has the right of proposing whomsoever he thinks best fitted for such an office, and although doubtless the Council have already decided amongst themselves whom it would be best to support, that support is presumably bestowed in their individual capacity. The gentleman chosen on this occasion will undoubtedly represent the College with dignity and intelligence. He holds high office in the College, and that of itself may be an argument for his selection; but we can imagine that occasions might arise when the most suitable representative to sit upon a Council of Education like the General Medical Council should fail to be chosen by reason of the clumsy method of election at present in vogue. The same applies with even greater force to the election of a President of the College. These, however, are matters which concern the Fellows themselves, and we have no desire to meddle with them. Nor do they come under the head of Dr. WEST's proposals, which, although rejected, will have at least served the useful purpose of informing the College of the duties devolving upon it, and of the manner in which it may, without any change in constitution, best seek to fulfil them.

A VALUABLE essay has just been contributed by Dr. W. H. GASKELL to the *Journal of Physiology* on the structure, distribution, and function of the nerves which innervate the visceral and vascular systems. The recognition of the functions of the true vaso-motor nerves is of quite recent date, commencing with the observations and experiments of CLAUDE BERNARD, BROWN-SÉQUARD, WALLER, and others, about the year 1848, as may be demonstrated by a reference to MÜLLER's Physiology, who speaks only of their action on the heart; and to BROWN-SÉQUARD's lectures, in which the development of the subject is traced. Modern research has shown that the sympathetic system of nerves consists of groups or centres of ganglion cells, connected by means of afferent and efferent nerves with the cerebro-spinal nervous system, and that through these a number of reflex actions may be excited, which powerfully influence the movements of the viscera and vessels, and with them the nutrition of each and every part of the body. Dr. GASKELL, in the essay referred to, limits himself to the efferent nerves, which he divides into three groups: the nerves of the vascular muscles, which may be either vaso-motor or vaso-inhibitory; the nerves of the visceral muscles, which may also be either viscero-motor or viscero-inhibitory; and, lastly, the glandular nerves. His researches have been made exclusively upon the dog; partly because of the close resemblance between the distribution of its nerves and that of the nerves of man, and partly because our knowledge of the functions of the majority of the visceral nerves is based upon experiments conducted upon this animal. The more important points that he has ascertained in regard to the structure of the visceral and vaso-motor efferent nerves, are that the visceral nerves constitute the white portion of the rami communicantes, and issue from the spinal cord in definite sacral, thoracic, and cervico-cranial regions. They then enter into the ganglia of the visceral nerves—that is, into the lateral chain of the sympathetic, and the ganglia on the main stems of the vagus and glosso-pharyngeal nerves. The vaso-motor nerves arise from a more limited portion of the central nervous system, and run, Dr. GASKELL believes, in the outflowing stream of visceral fibres which occurs between the second thoracic and second lumbar nerves, entering the lateral ganglia and there losing their medullary sheaths. This great chain might therefore most appropriately be termed the chain of vaso-motor ganglia, instead of its present title of main sympathetic nerve. There is no satisfactory evidence that vaso-motor—that is, vaso-constrictor—nerves join or are contained in the vagus or other cranial nerve.

Special examination of the central origin of the spinal accessory nerve, which governs the peristaltic contraction of the œsophagus, stomach, and intestines, shows that the fibres in part arise from the cells forming Clarke's column (which set forms a ganglionated root) and from a non-ganglionated root in connexion with the cells of the lateral nerves, and that they leave the central nervous system amongst the fine medullated fibres which issue from the upper part of the cervical region, and pass by way of the rami viscerales of the accessory and vagus nerves to the ganglion of the trunk of the vagus, where they become non-medullated. Proceeding by analogy, Dr. GASKELL considers that the nerves which arise from each spinal segment are formed by three roots—an anterior non-ganglionated root in connexion with the cells of the anterior horn, a posterior ganglionated root in connexion with the cells of the posterior horn, and a lateral root, which, like the fibres of the spinal accessory, are again divided into a ganglionated root in connexion with the cells of Clarke's columns, and a non-ganglionated root in connexion with the cells of the lateral horn. The motor nerves to the rectum, bladder, and uterus receive

a double set of motor fibres—one from the cerebro-spinal, the other from the sympathetic system. The cerebro-spinal nerves pass to the hypogastric plexus, and thence to the organs in question by those visceral branches of the second and third sacral nerves which form part of the pelvic splanchnics, and are known as the nervi erigentes. The sympathetic fibres, on the other hand, pass to the inferior mesenteric ganglion along the rami efferentes of that ganglion, and thence to the hypogastric plexus. The former therefore issue by the sacral stream of visceral nerves, the latter by the thoracic stream. The functions of these two sets are opposed: the pelvic splanchnics innervate the longitudinal fibres of the bladder, rectum, and uterus; whilst the circular fibres which effect peristaltic action are under the control of the hypogastric nerves or lower abdominal splanchnics.

In regard to the vaso-dilator nerves, the existence of which is now generally admitted on the strength of the inhibitory nerves of the heart and the effects of stimulation of the chorda tympani, the small petrosal nerves, and the nervi erigentes, Dr. GASKELL'S researches show that they are medullated and of fine calibre, and that they leave the central nervous system by the cervico-cranial and sacral rami viscerales; thence they pass into the distal ganglia, where they lose their medullated sheath.

Dr. GASKELL'S memoir thus throws much light on the connexions of the sympathetic with the cerebro-spinal nervous system, and holds forth a hope that it will not be long before the objects and functions of the tangled plexuses we now call the visceral plexus are unravelled and made clear.

DR. OLIVER WENDELL HOLMES will be welcomed in this country by the reading classes of the community especially, and by the masses generally. The former will recognise him as an impressive and instructive writer; the latter partly as a humourist, partly as an American, and partly as a man of mark whom it is right to know. The medical profession, however, has a particular reason for hailing our guest with exceptional cordiality. He is for us in England the embodiment of an idea—unhappily an idea which has very few remaining embodiments, which is fast dying out, and by its death leaving a body of cultured men deprived of one of its most potent claims on the respect and confidence of the educated classes. It is useless to disguise from ourselves that, in developing the professional and scientific elements of Medicine as a vocation, we have not only neglected, but almost wilfully, if not willingly, abandoned its once scholarly and literary characteristics. It may seem a hard thing to say, but never in the history of our art were those by whom it is practised at a lower ebb as regards general scholarship, in spite of the acknowledged excellence of their attainments as technists. It has been by throwing aside the weight of scholarship that professional distinction has been won. The highest places in medicine are no longer held by men who, having achieved success in scholarship at the universities, "went out," as the phrase used to run, in physic. The long-cherished traditions of intellectual culture have been almost swept away, and now a young man is educated for the calling of a physician or surgeon as he would be for any other department of enterprise or industry; and with a view to the utilisation of every available force of which his brain may be capable in the particular business before him, he is not only encouraged, but required, to abstain from what is called the dissipation of mind-power in profitless—that is to say, not directly profitable—activities.

Dr. OLIVER WENDELL HOLMES, who, it must be remembered, is representative of the last generation rather than of the present, comes to us as a survivor of the intellectual and literary type, upon which our contemporary development is held to be such a marked improvement. He is a medical practitioner, but before that he was, and above it he is still, a "man of letters." We welcome him in our midst specially in that character, and it will redound to our advantage as a section of the community if we bestow more than a passing thought on the position he occupies. It will be well if the attention of our students is directed to this man of mark while he is among us, and if they are even for one moment reminded of a type which would seem to be becoming extinct (in the home country at least)—the literary scientist. We are, of course, all too busy with our daily work to bestow much time on the literature of medicine, but if only so old-fashioned and simple a book as AIKIN'S "Biographical Memoirs of Medicine in Great Britain from the Revival of Literature to the Time of Harvey" could be read by the practitioner of this last quarter of the nineteenth century, he would rise from the perusal with a feeling not far removed from humiliation provoked by the contrast displayed between the social positions occupied by physicians and surgeons in earlier and recent times. The difference is mainly, if not wholly, due to the specialising tendency of modern culture—a tendency which shows itself, perhaps, more disastrously in connexion with medicine than with any other branch of scientific pursuit. Is it inevitable and final, this choice of a narrowed intellectual path for the practitioner of medicine? Must he certainly be an expert in the art of healing, and nothing besides? Before we answer this question, and while we are doing so, let us mingle with our cordial and brotherly welcome to Dr. OLIVER WENDELL HOLMES a spirit of appreciative criticism, and try to learn how far we are the gainers or the losers by a policy of neglecting, if not of contemning, the gifts that were cultivated in the old times this visit of our revered guest invites us to recall, and in the possession and full fruition of which he has attained to an age crowned with honours and cheered by troops of friends.

IT remains to be seen whether the leave-all and please-all kind of legislation represented in the Medical Bill of the Government is to have the easy passage which its authors intended and hoped for. Clause 13 gives power to any two Lords of the Privy Council to order the registration of as many foreign graduates as they please, and not only so, but gives their two lordships power to order the Medical Council to register foreign diplomas and foreign graduates, which and whom they have distinctly refused to register. This is rather hard upon a profession which has been accustomed practically to govern itself and to be considered liberal and independent. But there is a tone of decisive frankness about the clause and its subsections which seems to imply that business is meant. Subsection 2, which says the Privy Council may make such order, adds emphatically "*and such order shall be duly obeyed.*" It really looks as if

Sir LYON PLAYFAIR meant to provide the medical profession through the Medical Council with masters, notwithstanding the general air of innocence and non-interference which pervades the Bill. Is it in contemplation to increase freely the number of foreign graduates? We have never been illiberal in this matter. Our own graduates and those holding our diplomas turn up in every country, and we like to have their diplomas recognised, though we are often disappointed. But to give a *carte blanche* to two Lords of the Privy Council to override the deliberate judgment of the Medical Council on the merits of a foreign diploma or a foreign graduate is certainly rather a strong proceeding, and would have produced a protest from any Medical Council worthy to represent the medical profession. Sir LYON PLAYFAIR has not made any public admission of the error of his estimate of the waste of the profession, or of the fact that many hundreds are entering it every year in excess of the number required to fill the vacancies in its ranks caused by death or in other ways. But even Sir LYON PLAYFAIR will not maintain that we need, on the score of numbers, to have recourse to the admission of doubtful foreign degrees and graduates. Why, then, this imperious tone in the clauses providing for the recognition of foreign degrees against the judgment of the Medical Council?

But it must be admitted that though the new power of the Privy Council is more accentuated in the matter of compelling the Medical Council to do that which it does not approve in the matter of foreign degrees, this power is significantly expressed in other parts of the Bill; notably in Part III., Clause 18, under the head of Micellaneous Provisions. This clause gives power to the Privy Council (any two Lords of it, Clause 19), under certain conditions, to supersede the Medical Council at any time in any matter or question, in which the Medical Council has omitted to exercise its powers under the Medical Acts or in this Act. Now, the Medical Council being the powerless and the timid body it has hitherto been, the taking of such powers may seem not unreasonable. But the very taking them is, in our judgment, the gravest condemnation both of the Bill and of the Medical Council. The Medical Council ought to be a body so complete in its own powers, and so perfect in its own constitution, as that the claim of such powers by the Privy Council ought to be out of the question. But these clauses seem to say on the part of the Government: "We see the impossibility of that Council, with all its rival and competitive jealousies in full play, doing anything thoroughly, or settling the new questions which are likely to arise under Clause V. and other clauses, on broad and just principles. We feel our own want of courage to deal boldly and firmly with the reform of our examining bodies; so we shall insert in the tail end of the Bill clauses which give us the right to interfere, without the initiative of either the Council or the individual bodies, and compel them to do what they ought to do or what we think they ought to do." Even if the direct representation of the profession be increased to six, as is said to be likely, we cannot accept a Medical Council so condemned as this is to be by the threat of being constantly over-borne and superseded by the Privy Council. The Crown—that is, the Privy Council—has the nomination of six members of the Council to begin with. If that is not enough, let the Lord President himself, or the Vice-President of the Committee, have a seat in it, and let the number of rivalries and jealousies be reduced by collective representation. But do let us have a Council that has complete and independent powers within itself, without requiring the constant interference of the Privy Council.

The corporations feel aggrieved, it is understood, at the Universities having powers individually to give complete qualifications, while they (the corporations) must act in conjunction—saving those happy bodies, like the Apothecaries' Society, that are to co-operate with the Medical Council. It would be curious to see the resuscitation of the Apothecaries' Society, with new faculties and a diploma of moderate cost, superseding the more pretentious and costly parchments of the Royal Colleges. This is evidently one object of the Bill, or of Clause V., under which indeed we may have a great development and transformation of the rival system which now obtains and which is a scandal. In the absence of the Medical Council, which seems to have gone to sleep, this clause will probably receive the attention of the corporations.

Annotations.

"Ne quid nimis."

CONVOCATION OF THE UNIVERSITY OF LONDON.

ALTHOUGH the agenda paper of the annual meeting of Convocation on the 11th inst. was very full, the actual amount of business transacted was small. The most important subject—viz., the report of Mr. Magnus's committee upon a new scheme for the constitution of the University—was by leave withdrawn from presentation at this meeting, to be considered at a special meeting on the 25th inst. Certain resolutions affecting the constitution of the University, which were down in the names of Mr. Tyler and Mr. Spratling respectively, were also postponed, it being understood that they would be taken in the form of amendments to Mr. Magnus's scheme. Much time was occupied in the disposal of these matters, which came on after the House had been sitting about two hours. The proceedings commenced with the reappointment of Mr. Allen, LL.B., as clerk of Convocation, and the passage of a resolution approving of the action of the Annual Committee in forwarding a resolution to Mr. J. R. Storrar expressive of their deep regret at the death of Dr. Storrar, the late chairman of Convocation. The report of the Annual Committee was then received. It was resolved on the motion of Mr. Unwin, seconded by Mr. W. L. Carpenter, that a scientific degree suitable for engineering students should be instituted by the University, and a provisional scheme for this object, which had been drawn up by the Annual Committee, was approved and submitted to the Senate. On a motion by Dr. Benson, seconded by Mr. Kisch, that the regulations for degrees in Laws should be referred to the Annual Committee, an amendment, moved by Mr. Newson, to refer the subject to a special committee of seven, was carried. As, according to the standing orders, the members of the committee should have been nominated forthwith, a motion to suspend the standing order was put and carried, and the nomination deferred to the next meeting of Convocation. Dr. Baines moved that Convocation approve of the movement to celebrate the jubilee of this University, the first Charter of which was dated Nov. 28th, 1836. Mr. Bone seconded the motion, which was opposed by Mr. Hutton, who did not think the Uni-

versity would add to its dignity, but that it would detract therefrom, by such a celebration. It had not had fifty years even of teaching, but fifty years of examination, which had ended in a great dispute as to whether they were occupying their proper place as a university or not. After a short discussion, the motion was agreed to; but while discussing the terms of the resolution appointing a committee on the subject, the House was counted out.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE exceptionally severe and trying weather that prevailed during the first quarter of this year invests with more than usual interest the Registrar-General's report upon the health of England during that period. It appears that the annual death-rate during the quarter was 22·8 per 1000 of the estimated population, and exceeded by 0·6 the mean rate in the corresponding periods of the ten years 1876-85. These figures imply that between 5000 and 6000 persons died in England and Wales during the quarter who would have survived if the mean death-rate had not been exceeded. Only twice during the ten years referred to was the death-rate in the first quarter of the year higher than in the three months ending March last; it was 23·4 in 1876 and 24·9 in 1879. The lowest rate in the first quarter of any year on record was 19·5 in 1884. The excess in the death-rate last quarter mainly occurred in the rural districts. The death-rate in the 17,000,000 of persons living in the chief towns was 23·6 per 1000, whereas in the 11,000,000 living in the small towns and rural districts it did not exceed 21·6. Compared with the average rates in the first quarters of the preceding ten years, however, the excess of mortality in the rural rate last quarter was equal to 5·2 per cent., while it was but 0·4 per cent. in the chief towns. This may be partly due to the larger proportion of elderly persons in the rural population, upon whose mortality the effect of cold is most marked; it may, however, be in large measure attributed to the greater decline in recent years of urban compared with rural mortality, the result of improved sanitary condition. To this general improvement in the national health may, indeed, be attributed the apparently small excess in the general mortality in England last quarter, when compared with the mean mortality in the ten preceding corresponding quarters. During last quarter the temperature fell below the freezing-point of water on 51 of the 90 days: on 16 days in January, 17 in February, and 18 in March. The lowest reading of the thermometer on these 51 days showed a daily average of 5 degrees of frost. In the mild first quarter of 1884, when the death-rate did not exceed 19·4 per 1000, there were only 10 frosty days, with an average of 2·2 degrees of frost. The greatest amounts of cold in the first quarter of any of the 16 years 1870-85, measured in this manner, occurred in 1879 and 1881. In 1879 there were 49 frosty days, with an average of 3·8 degrees of frost; and in 1881 there were 40 frosty days, with an average of 7·0 degrees of frost. The English death-rate was 24·9 in the first quarter of 1879, and only 21·5 in the same period of 1881. It is evident, therefore, that the mere amount of cold does not afford a satisfactory explanation of the wide variations in winter mortality. It is worthy of note that during last quarter the death-rate in the twenty-eight large English towns showed comparatively little excess until nearly the end of February, notwithstanding the 16 frosty days in January and the 7 in the first half of February. The death-rate in these towns averaged only 23·5 per 1000 in the first eight weeks of the quarter, whereas the mean rate in the next four weeks was 27·6. It would appear that cold in March is much more fatal than in January, but far too little is yet known of the conditions which govern the widely varying effect of cold upon mortality.

LIGATURE OF ARTERIES IN CONTINUITY.

CERTAINLY the paper communicated by Messrs. Ballance and W. Edmunds to the Royal Medical and Chirurgical Society on the Ligature of the Larger Arteries in their Continuity was one of the most important of the present session. Perhaps its chief interest lay in the careful and extensive pathological investigation, but it has an evident direct bearing on surgical practice which could not fail to excite the interest and close attention of the surgeons present. The chief contention of the authors was that it is "neither necessary nor advisable" to ligature the vessel so tightly as to rupture the coats. It is necessary, however, to obliterate as nearly as possible the lumen of the artery. The object aimed at should be the excitement of just sufficient damage to cause a chronic or subacute arteritis, which leads to permanent occlusion of the vessel. The internal coats should not be ruptured for fear of opening up channels for septic absorption, and with a view to preventing such a degree of damage as would be followed by ulceration and subsequent danger from secondary hæmorrhage. If it were easily possible to excite just sufficient inflammation to secure the object in view by the means advocated, considerable progress would be made in arterial surgery. Mr. Savory, Mr. Holmes, and others appeared to doubt the possibility of obtaining the desired end by the method recommended when applied to the human subject. An examination of the specimens, both macroscopically and microscopically, which the authors brought forward, is amply sufficient to convince the most sceptical that the means employed in sheep and horses were adequate to the end in view. But here comes the rub. Can we argue from animal to man—from the arteries of sheep and horses to those of human beings? Theoretically we do not perceive why this should be impossible; but even the authors of the paper would probably admit that this is a question which must be submitted to the test of a prolonged experience in the operating-theatre and wards of hospitals for human beings. One point on which the authors commented was the undesirability of attempting to rupture the internal coats of diseased arteries when these have to be deligated in their continuity. Every surgeon must feel the immense importance of the question; for assuredly a benefit of no mean order would be conferred on individuals with diseased arteries if a ligature could be so applied as to be sufficient to incite an inflammatory process adequate to effect the occlusion of the lumen of a diseased artery, and without being so firmly tied as to rupture its internal coats.

MEDICAL STUDENTS AND INFECTIOUS DISEASES.

MEDICAL students in London have for some time been unfortunate in regard to their opportunities for studying acute infectious diseases. The hospitals of the Metropolitan Asylums Board, which are the chief institutions where these studies could be most successfully prosecuted, have been closed against them; but the Managers have at length learned that the public must eventually suffer from the inability of the profession to properly exercise duties which require an intimate acquaintance with infectious disease unless facility is given for their study, and they have therefore put themselves in communication with the Local Government Board with a view to the valuable material their hospitals contain being made available for educational purposes. The Local Government Board have, in reply, pointed out that the section of the Act of Parliament authorising the Managers' hospitals to be used for clinical instruction has been repealed. At a meeting of the Managers held on Saturday, it was resolved that the several infectious disease hospitals under their control should be made available for this purpose, and that the Local Government Board be

urged to obtain from Parliament all the necessary powers. Medical knowledge would probably gain much if the boards of management of other Poor-law institutions would follow the example thus set them. Charcot has shown how much may be learnt from a study of the chronic diseases which especially find their way into institutions which are provided for the old and infirm; in London there is a vast wealth of material for study, but which is left untouched, mainly owing to the absence of the use for educational purposes of the institutions containing it. The decision of the Metropolitan Asylums Board may lead to this being better understood.

PATHOLOGY IN THE BIRMINGHAM SCHOOL.

AT the opening of the Summer Session the Rev. W. H. Poulton, the warden of Queen's College, announced that the Council had, at considerable expense, organised a special department for pathological research and tuition. The local institutions have always been rich in morbid specimens, and for some years a distinguished young pathologist has been a member of the resident staff at the General Hospital; but the systematisation of the study of morbid anatomy has been a recognised want in the local school. It has now been supplied by the appointment of Professor Gilbert Barling, who has organised the new pathological department in a very complete manner. The lectures will be given at stated hours in the laboratory, which, for purposes of study and original research, is fitted with stands for thirty students. Microscopes, reagents, and sections are provided for them, and the Professor will be assisted by the medical tutor, Dr. Hogben. The summer course will include anomalies in the distribution of the blood within the vessels; retrogressive disturbances of nutrition, hypertrophy, hyperplasia, inflammation, tumours, and the infective granulomata. A general description will be given of the schizomycetes, and practical classes arranged for pathological study of matters directly related to clinical work. Altogether, the new pathological department at Queen's College, Birmingham, marks a distinct and very important advance.

THE GORDON BOYS' HOME.

WE have much satisfaction in recording the successful establishment and progress, as a part of our national work, of the Boys' Home, which recalls the memory of the late General Gordon. The memorial could hardly have taken a form of greater public usefulness, or one more harmonious with the wishes, the character, and the whole life and actions of the unpretending hero of Khartoum. If there is anything in the history of General Gordon which more than another impresses the reader, it is his singular fitness in emergencies—his appropriateness, we may say, to some of the most critical needs of his time. We seem to notice the same quality in the lives of other great men, in all such more or less, but in none perhaps in so remarkable a degree. Wherever Gordon was needed, he was found; wherever found, his influence was felt and was fruitful of benefit. Whether in China, fortifying the only available form of law and order, and giving direction to the future of that empire which we cannot now estimate; in the Soudan, maintaining justice, promoting the love of liberty, protecting the helpless; or at home, employing his leisure obscurely and wisely for the most neglected of his own countrymen,—he was instinctively and essentially the man for the work. He has been spoken of as a fatalist, though he always repudiated the term. Some belief in destiny no doubt he had, but this did not imply the blind sense of a future which for him was aimless, but a perception of the design and working of a Higher Power with whom he sought to act. It is not therefore surprising that Gordon found his own place in that design. It is to our mind peculiarly characteristic of the man, and suitable in his memorial, that it should have accurately met one of the greatest social necessities of our time. The potential future of a nation is in its young men. Upon their type, their tendencies, and belief its course will chiefly depend. Upon them necessarily also the forces of any time, its perplexities, temptations, and responsibilities will chiefly act; and nothing could be more desirable than that the name and principles of this later Bayard should be perpetuated in an effort to secure the best interests of his young fellow-countrymen. We therefore commend most heartily to public consideration the memorial scheme, which is under the presidency of His Royal Highness the Prince of Wales.

EFFECT OF BITTERS ON DIGESTION.

DR. CHELTSOFF, chief of Professor Botkin's clinic, thinks that extracts of the so-called "pure bitters," which are usually prescribed with the view of stimulating the secretion of gastric juice and of aiding digestion, so far from having any beneficial effect of that kind, are absolutely injurious, inasmuch as they retard the digestive functions. He has made a series of experiments with extracts of aurantium, gentian, trifolium, absinthium, calumba, cascarilla, and quassin on (1) gastric digestion, and the secretion of gastric juice; (2) pancreatic digestion and the secretion of pancreatic juice; (3) the secretion of bile; (4) fermentation; and (5) nitrogenous metamorphosis. The conclusions at which he arrived were that bitter extracts, even in small doses, interfere with artificial gastric digestion, and also with the gastric digestion of animals, but not to so great an extent. Large doses of bitter extracts diminish the secretion of gastric juice, though small doses effect a slight and transitory increase of it, the digestive power of the fluid being, however, in all cases diminished. Bitter extracts have no effect on the secretion of pancreatic fluid, but they nevertheless retard hypogastric digestion. The action of bitter extracts on the secretion of bile is various; extract of absinthium, extract of trifolium, and large doses of extract of cetrarin, slightly increases it, usually at least, but not invariably; while extract of quassia, extract of calumba, and small doses of extract of cetrarin, have no effect at all. Bitter extracts have no anti-fermentative effect, and do not hinder suppuration. Lastly, assimilation of nitrogenous substances is diminished by the use of these extracts.

BULLETINS AND PARAGRAPHS.

IT is only natural that there should be public announcements of the illnesses which befall prominent members of society. Nor is there anything to complain of in the issue of such notifications. More than this, no possible objection can exist to the signing of bulletins by medical men, when it is a matter of moment that the opinion expressed should be promulgated on the authority of the practitioners in charge of the case. The objections we have from time to time urged against newspaper intimations as to the state and treatment of sick personages have been based on particular grounds. Either the announcements have been needlessly issued or they have been of the nature of advertisements, or they have been so drawn up as to be unintelligible or misleading. Speaking generally, we see many and grave reasons why "paragraphs" which are not bulletins should be issued at all. In any case we do not think they should contain the names of practitioners of medicine. If bulletins are needed, let them be written by the medical men in attendance and signed by them. Paragraphs which announce that a distinguished person has been treated by So-and-so, successfully or otherwise, are objectionable in the highest degree. It is enough for the information of the

public that the fact of progress, or, in the case of an operation, of success, should be intimated. The introduction of the name of the attendant or operator cannot possibly have other than one purpose—namely, the glorification of the individual named. With reference to a recent announcement to the effect that a distinguished member of the judicial bench had been successfully operated upon by two surgeons simultaneously, the form of the notice would in itself be sufficient proof that the paragraph was not indited by a professional hand. We are, however, in a position to state that the notice in question was issued without the knowledge of the surgeons named.

THE LORD CHIEF JUSTICE AND UNQUALIFIED ASSISTANTS.

THE remarks of the Lord Chief Justice in the trial, at the Central Criminal Court recently, of Mr. A. W. Head, who was charged with the manslaughter of Henry Hibbert, are of a character to be pondered, if we may not question them. He declined to define culpable neglect. He said that the question of being a licentiate of a College or not, having a qualification or not, was a point of difference of which the law of England took no notice in respect of the question of competent skill. So much the worse, we say, for the law of England. The Lord Chief Justice further observed that the very fact that Dr. Money had employed his assistant was evidence of the assistant's competence—"otherwise Dr. Money would not have employed him." This is the most extraordinary deliverance on the subject of medical qualification which we remember to have heard. It seems to dispose of the necessity of all medical authorities and examining boards, and to frank all unqualified assistants acting under the ægis of medical men. After such remarks, we are prepared to find the Judge very tender in his judgment of Mr. Head. Fatty heart was difficult of diagnosis even to the skilled physician; and although the defendant did not verbally correct the erroneous instructions about the medicine, he wrote a label in the plainest hand. It was not necessary to maintain that the defendant had brought the highest skill to the case. All that was necessary was that he should have brought reasonable skill. After such deliverances the jury of course found a verdict of "Not guilty," and the defendant was discharged. The defendant is to be congratulated on having such a statement of the law of competence and skill, not only from the judgment-seat, but from the Lord Chief Justice of England. We will not pretend to be satisfied with it, or to think it satisfactory in the public interest; but the law generally, and that regulating medical practice, is so bad all round, that possibly the Lord Chief Justice's judgment may be justified.

CONNEXION BETWEEN SPLENIC TUMOUR AND THE UTERINE FUNCTIONS.

DR. SKORCZEWSKI describes in the *Przeglad Lekarski*, a Polish medical journal, a peculiar case of splenic tumour which had a distinct relation to the generative organs. A woman aged twenty-six, after a difficult labour four years ago, experienced pain in the left hypochondrium, and in the course of a few days noticed a tumour in the abdomen, which rapidly attained to the size it was when first seen by Dr. Skorczewski. It then occupied nearly the whole abdomen, being of an ovoid form, the long axis being transverse. It was hard, with smooth thick edges, and could be displaced upwards to the extent of a hand's-breadth above the symphysis pubis. The urine was normal; also the number of blood-corpuscles. Quinine and arsenic produced no effect. Electricity was then tried, and after a course of the interrupted followed by another of the constant current, occupying together some three weeks, the tumour had diminished so much that when pushed up under the left ribs it only extended about a hand's-breadth below them. The patient's general condition, too, had become decidedly better. Menstruation, lasting four days, then occurred, and simultaneously the tumour again increased to its original dimensions, and the woman's general condition became worse. Neither electricity nor other methods of treatment which were tried produced any fresh diminution in the tumour or any improvement in the general condition. The connexion between the splenic tumour and the functions of the generative organs was evident enough, but no explanation of this connexion seems to have suggested itself to the author.

HER MAJESTY'S INSPECTOR OF VIVISECTION.

THE announcement of the appointment by the Home Secretary of Mr. J. Eric Erichsen, F.R.S., to the post of Her Majesty's Inspector of Vivisection, under the provisions of the "Cruelty to Animals Act" of 1876, affords a fitting opportunity for an expression of regret that the country should lose through ill-health the services of one who for the past ten years has discharged the duties with a carefulness, highmindedness, and right feeling which those who know Mr. Busk best can most fully appreciate. Her Majesty's Inspector of Vivisection is one of those official personages on whom the public light shines sometimes fiercely, and his relations with the medical profession are both useful and important, requiring the exercise of some diplomacy. That vivisection is necessary for the progress of science we have always held; that it should be guided and directed by those best competent to judge of the value of proposed investigations we equally regard as just in the cause of humanity. In Mr. Busk the Government had, in combination with the Association for the Advancement of Scientific Medicine by Research, two advisers on whose judgment it could rely in carrying out the spirit of the law. It appears from Mr. Busk's report for the past year that of the 53 persons who held licences in England and Scotland during any part of the year 44 performed experiments. The total number of experiments performed was about 800. Of these 210 were done under the restrictions of the licence alone, and 82 lecture demonstrations under similar restrictions, but also under certificates permitting experiments in illustration to lectures, anæsthetics being necessary; 382 were performed under special certificates for experiments without anæsthetics, and 128 under certificates dispensing with the obligation to kill the animal before recovering from anæsthesia. Of the large number (382) performed without anæsthetics, no fewer than 328 consisted, so far as any operative proceeding was concerned, in simple inoculation or hypodermic injection, either with some morbific virus or for the purpose of therapeutic inquiry, and in which the administration of an anæsthetic, to which all animals have a great repugnance, would only entail needless annoyance and distress.

SHOP SEATS FOR COUNTER-SERVERS.

IT has been suggested by the *St. James's Gazette*, and we warmly support the proposal, that a clause should be introduced into Sir John Lubbock's Bill to compel shopkeepers to provide seats for their *employés*. Something more than this is needed—namely, that they should be further required to sanction the use of the seats when provided. As a matter of fact, we have reason to believe that the objection to provide seats pales into insignificance beside the objection to shop-assistants sitting. Both shopkeepers and customers look upon the fact of a young man or woman sitting as a proof of laziness. While this feeling exists it is in vain to contend about seats.

ROYAL MEDICAL BENEVOLENT SOCIETY.

THE twenty-third festival of the Royal Medical Benevolent College took place on Tuesday evening in the Venetian Chamber of the Holborn Restaurant, Sir Andrew Clark, Bart., occupying the chair. The gathering was a large one, about a hundred medical men and laymen being present, and was fairly representative of the various branches of the profession. The Chairman proposed in graceful terms "The health of the Queen," dwelling on the importance of preserving a spirit of loyalty amongst all classes. Dr. E. Waters, of Chester, proposed "The Army, Navy, and Reserved Forces," to which General Sir L. Pelly, M.P., and Admiral Sir Anthony Hoskins replied. The latter mentioned that Dr. Walter Dickson (who was present) and himself started on their first voyage in the same ship many years ago. The toast of "The Reserved Forces" was acknowleged by Dr. Trend, of Southampton. The toast of the evening was proposed by the Chairman, who entered into the details of the working of the institution at some length. In connexion with it are fifty pensioners, twenty-four of whom reside in the College, and are between sixty and eighty years of age; the remaining twenty-six live at their own homes. The school contains fifty foundation scholars, the orphans of medical men, who are lodged, boarded, clothed, and educated. There are, besides, 150 resident scholars, mostly the sons of medical men, who pay nearly enough to cover their expenses; and, in addition, a few day scholars are received from the neighbourhood. Whenever vacancies occur there are a great number of applicants to fill them. The Chairman stated that he believed the work of the institution was exceptionally well done. The total cost per annum was £5000, to meet which they had an income, steadily diminishing, of £3800; a special effort was therefore necessary. Of the 16,000 members of the medical profession, he regretted to say not more than one-fifth interested themselves in the College. This was, he said emphatically, a disgrace both to the successful and the unsuccessful members of the medical profession; and he trusted that this stigma would be speedily obliterated. Subscriptions were subsequently announced amounting to about £4000. The toasts of "The Chairman," "The Head Master,' and "The Honorary Local Secretaries" were then honoured. The proceedings were much enlivened by a well-chosen selection of music interspersed between the toasts. This consisted of choruses and solos from "The Pinafore," and two part-songs, "Integer Vitæ" and "Beware." Mr. Trelawney Cobham, Dr. Lavies, Mr. J. W. Y. H. Lavies, and Mr. G. Anderson Critchett were most successful in their songs, and Mr. W. Ganz presided with his well-known skill at the piano. The arrangements for the dinner were in every way satisfactory. We may add that the annual voting papers for pensionerships and scholarships in the College have just been issued to the subscribers, from which it appears that there are three vacancies for pensioners and twenty-three candidates, only three of whom have been subscribers; there are two vacancies for scholarships and fifty-seven candidates, only two of whom have been subscribers. When will the great advantages of this excellent institution be better appreciated by the profession?

PIPE v. BRICK SEWERS.

FOR some time past we have heard complaints as to the construction of brick sewers in various portions of Paddington instead of the more economical and, under the special circumstances we are considering, the more efficient method of laying down glazed pipe sewers. Thus we are informed that for some four to nine houses in one street a brick sewer 3 ft. 9 in. by 2 ft. 6 in. has been constructed, and Mr. Mark Judge, in bringing the matter prominently before the inhabitants of the parish, points to this as involving a useless expenditure, and he reminds those whom he addresses of the well-known axiom of sanitary science that sewers should be as small as possible, having due regard to the work they have to do. This, we have generally understood, was universally accepted as a rule in connexion with sewer construction. If a sewer is larger than is necessary, the tendency is to reduce the rapidity of the flow of sewage, to favour the deposit of contents, and so to lead to decomposition and the resulting foul effluvia from the ventilators. On this ground alone it is to be hoped that those who ask the vestry to hold their hands in this matter will receive a favourable hearing, and that the practice heretofore in vogue, of building large brick culverts where small glazed-pipe sewers would apparently suffice, will not be continued without some formal explanation of the circumstances which are regarded as justifying it.

HOW DOES NITROUS OXIDE ACT?

THE dictum of Claude Bernard that nitrous oxide does not cause anæsthesia as the result of asphyxia, but by an altogether different mechanism, was accepted as the basis of an interesting and careful paper read by Dr. Dudley Buxton before the Odontological Society of Great Britain. It is suggested that nitrous oxide may be taken as in all probability entering the blood by forming a loose combination with either the oxyhæmoglobin or the globulins and other albuminous bodies. It then passes to the nervous centres and gives rise to subjective exhilaration, acting in fact as a stimulant. If an individual be watched whilst in the act of inhaling nitrous oxide, it will be found, urges Dr. Buxton that the respirations are simply an exaggeration of the normal—quite regular, but hurried in rhythm and increased in depth. There is nothing in the nature of the expiratory convulsions with which one is so familiar in the case of the lower animals dying from asphyxia. The author maintained that he narcotised his patients before the oxygen was exhausted—and, he submitted, a long while before.

"HYSTERICAL FEVER."

SINCE the application of the thermometer to the study of disease, the question of animal heat has assumed an importance that it did not possess before; but at the present time physiologists are not quite agreed as to the mechanism by which its production is governed, and several points require elucidation in considering the production and regulation of the normal heat of the body before we can take the work of the physiologist and utilise it for the study of medicine. The physiologist, however, often receives aid in his studies from the pathologist—the experiments of nature throw light on the experiments of the laboratory. Thus the work of the physiologist brought him to think that the production of animal heat is under the control of the central nervous system in much the same way as its regulation, but the exact proof of this position is wanting. Pathology, however, steps in and supplies the want. It says there is a disease consisting in a functional disturbance of the nervous system accompanied by an increase of temperature. Several cases of this sort have been recorded—viz., of hysteria with a high temperature, the latest of which was a case related by Dr. Debove to the Société Médicale des Hôpitaux, in which the patient, having been under observation for some time, had exhibited, besides her neurosis, occasional elevations of temperature. In the month of November of last year this elevation became continuous, and 39·5° C. was recorded in the axilla night and morning; during December 40° C. was the number, and during the latter part of the month 41° C.; during January, up till the 24th day of the month the thermometer was

always above 41° C., and then it gradually sank to the normal by the 29th day. No lesions of the internal viscera could be discovered, but each evening about seven o'clock an hysterical attack came on, which lasted till one o'clock in the morning. But perhaps the most remarkable feature of the case was the slightness or general absence of difference between the morning and evening records. Anyone glancing at the numbers would perceive that this was no ordinary record of disease temperature, and perhaps it will be well to bear this in mind, because it is very easy to see what a dangerous weapon we are introducing into practice when we use the term "hysterical fever." Many are the elevations of temperature for which it is very hard to find an adequate cause, and to comfortably sink back on such a term for these cases would be most disastrous. After this three months' elevation of temperature the convalescence was as rapid as the fall, which tends to show, as Dr. Debove points out, that hyperthermia in itself is not such a source of danger as some think, and that increased heat will not by itself produce lesions in internal organs. A further lesson we may learn from the case, that the differential diagnosis between epilepsy and hystero-epilepsy by the temperature, as pointed out by Charcot, is not absolute.

SIR DYCE DUCKWORTH.

WE understand that Dr. Dyce Duckworth, Treasurer of the Royal College of Physicians of London, and Chairman of the Building Committee of the new Examination Hall of the Colleges of Physicians and Surgeons the foundation-stone of which was recently laid by Her Majesty the Queen, has received the honour of knighthood. We offer our hearty congratulations to Sir Dyce Duckworth on the honour which has come to him. He is a distinguished medical graduate of the Edinburgh University; he has done much good work in pathology, medicine, and medical literature. His general character for sound judgment and good-heartedness, and his many-sided relations to the profession and to its leading corporations, make the honour conferred on him a matter of satisfaction to the profession. For the same reasons we feel glad that Sir Dyce Duckworth has been charged with the honourable duty of representing the College of Physicians of London in the Medical Council.

A PRECURSOR OF PASTEUR.

AN interesting volume might be compiled under the title of "Medicine's forgotten Worthies," in which few chapters would be more attractive than one devoted to Dr. Eusebio Valli, a Tuscan physician, who died seventy years ago. He was born in 1755 at Casciana, and his first professional laurels were won at Smyrna during a visitation of the plague. We next hear of him in France, where he held a post on the medical staff of the "Cablys" regiment, with which he sailed to Hindostan in 1783. Six years thereafter he returned to Italy, where he was associated intimately, as friend and coadjutor, with the great Alessandro Volta. Then he was appointed to the chair of Clinical Medicine in Mantua, whence he repaired in 1803 to Constantinople, again to study the plague, which was decimating the inhabitants. After its cessation he was once more in Italy and in Mantua, where he resumed his clinical prelections; and next we find him accompanying the French arms to Dalmatia. Thence he journeyed to Spain, and finally to America, where for the third time he encountered the plague, to which, however, he fell a victim on Sept. 24th, 1816. Among his writings is a most instructive account of the "Plague in Constantinople," in which he makes incidentally the following observations:—"When at Leghorn, in 1790, I communicated rabies to several animals by inoculating them with saliva taken from a hydrophobic dog. Inoculating other animals with the same saliva, corrected with the gastric juice of the frog, I found that none of them contracted rabies. Then I treated with this same gastric juice the son of the widow Rosselmini of Pisa and a maid-servant of the household, both of whom had been bitten by a foxhound which was suffering from hydrophobia. This inoculation neutralised the poison, and by the same means I cured a case of snake-bite, and also modified the variolous contagium, so as to generate a malady without cutaneous eruption, non-malignant and free from danger." This curious passage would have been lost to the historian of medicine but for the duteous care of the Cavaliere Giuseppe Valli of Ponsacco, a descendant of Dr. Eusebio Valli, who, after much research, compiled from documents unpublished or forgotten an interesting memoir of the Tuscan physician, which first saw the light in 1881. An appreciative review of this work appeared in our contemporary *Lo Sperimentale* of Florence, from the pen of its conductor, Dr. Angelini Filippi, and attention has again been drawn by the Tuscan school to Valli's treatment of hydrophobia by counteractive inoculation as a remarkable episode in the series of experiments which have culminated in the method of M. Pasteur.

PTOMAINE IN CHEESE.

IN the course of the year 1884 more than three hundred individuals inhabiting the State of Michigan experienced symptoms of poisoning after having partaken of a certain kind of cheese. In many of them the symptoms were of grave import, the medical attendants seriously discussing the possibility of poisoning by such irritants as arsenic, and indeed, prescribing the hydrated oxide of iron on that view. Vomiting, first of aqueous fluids, afterwards tinged with blood, was accompanied by severe diarrhœa. Constriction about the throat, epigastric pains, white fur on the tongue, soft irregular pulse, and cyanosed face were also observed. Fortunately none of the cases terminated fatally. The cheese examined by M. Vaughan had nothing peculiar in its taste or odour. On a fresh section numerous drops of a feebly opalescent liquid were to be seen, and micrococci existed in abundance in it. An alkaloid was extracted from the solid part of the cheese. Placed upon the tongue, it imparted an acid and burning sensation, soon followed by dryness of the throat and nausea. Absorbed in small quantity, it caused diarrhœa. M. Vaughan names it "tyrotoxicon," and obtained half a gramme of it from fifteen kilogrammes of cheese.

DUST AND REFUSE NUISANCES.

LONDON is threatened with another dust nuisance, for a wharf has been secured off Fermoy-road in the parish of Paddington, and the dust of Chelsea is to be removed there for the purposes of being sifted. The ratepayers in the neighbourhood very properly declare that if any dusting business is to be carried on in this populous district, it will soon become a nuisance and be dangerous to public health; and, in view of the importance of the subject, a special effort was made at the last meeting of the Paddington vestry to bring the matter forward. But the vestry adjourned for three weeks! A correspondent in the *Daily News* again asks the question why London householders should not follow the example set them in Paris, and place their house refuse every night in the street, whence it is easily removed in the early morning by the proper authorities. We presume the answer is to be found in the influence which dust contractors can bring to bear upon our local authorities; dust removal is now subject to a trades interest; at some times of the year it answers the contractor's purpose to remove house refuse, at others he has no immediate use for the dustbin's contents, and neglects to carry out the duty he is paid to perform. Doubtless.

if the removal of refuse were regarded only from the public health point of view, it would be found a more economic method to fill the dust-cart as rapidly as possible, and for this purpose the regular and systematic call for the refuse of every house would enable this to be accomplished much more readily than if the dustman were to continue, as at present, to make his irregular perambulation through the streets and only assist those householders who may chance to hear his cry, and be willing and able to submit to the blackmail which he levies as if by right.

SANITARY WORK IN ST. LUKE'S.

A CASE recently heard by Mr. Barstow at the Clerkenwell Police-court gives evidence of the need for the active enforcement of the provisions of the Sanitary Acts in the parish of St. Luke's. A summons had been taken out against the owner of premises known as the City of London Baths, Golden-lane, which had been converted into dwellings for poor people. Dr. Yarrow, the medical officer of health, gave a pitiful account of the condition of these buildings. There were, he said, within them twenty-three closets in a dirty state, all without water-supply; twenty-five rooms which were dirty and required whitewashing; some of the drains were stopped, while others were open; in the basement were two or three hundred cartloads of the most offensive refuse; ashes, instead of being deposited in bins, of which there were none, were heaped in many cases on the stairs. Dr. Yarrow asked for the premises to be closed, a request with which Mr. Barstow complied; the new Chatham-garden-buildings had been erected near, and the people, occupying the "Baths" could easily obtain at a low price the necessary accommodation. While we may express our satisfaction at the termination of conditions so disgraceful, we are none the less led to wonder how any premises could have been so neglected. Two or three hundred cartloads of offensive material cannot have accumulated in a brief space of time. We are forced to the conclusion that either the inspectorial staff is insufficient or that the vestry have been unwilling to comply with the recommendations of their officers. We trust that Dr. Yarrow, who has not long been appointed, will be able to reorganise the sanitary administration of this thickly populated parish.

THE VALUE OF A POST-MORTEM EXAMINATION.

AN adjourned inquest was held at the Town Hall, Hull, on May 6th, touching the death of Ellen Jane Jackson, a married woman. It appears that deceased some five weeks after her confinement—from which she had recovered—was seized with pain in the lower part of the abdomen, and that Mr. Swarbrick, an unqualified medical man, was called in to attend her. In the opinion of the latter the case was one of obstruction of the bowels, and, acting upon his diagnosis, he administered croton oil as a purgative. Subsequently the symptoms became more alarming, so much so, in fact, that it seemed clear that peritonitis had supervened. To alleviate this Mr. Swarbrick ordered opium and calomel, but in spite of this Mrs. Jackson died. Prior to her death she expressed her belief that Mr. Swarbrick's treatment was at fault; in fact, she went so far as to say that that gentleman had murdered her. The allegation was repeated by the husband, and this, strengthened by statements made by Dr. W. Ballingall, who was called to see deceased shortly before her death, that "there are symptoms of irritant poisoning," and "the cause of death is dark and mysterious," caused the coroner to order an inquiry, although Mr. Swarbrick had issued a certificate of death. This certificate bore the signature "Charles Eyre Councillor," a qualified medical man with whom Mr. Swarbrick had up to May 1st acted as partner or assistant. During the hearing of the case it transpired that Mr. Swarbrick possessed blank certificates of death signed by Dr. Councillor; but the particular one in question, although it bore Dr. Councillor's name, seems to have been signed by Mr. Swarbrick. The post-mortem examination was conducted by independent medical men. It revealed acute inflammation of the right ovary, with consequent peritonitis. From the appearances observed the medical witnesses could not say that the treatment had accelerated death, nor that other modes of treatment would have succeeded in saving Mrs. Jackson's life. The jury upon this returned a verdict that death resulted from peritonitis. Assuming that the exact nature of the affection could have been diagnosed, it would certainly not have been appropriate to administer strong purgatives; but the difficulty in making out the exact primary lesion in the presence of peritonitis is always great. The peritonitis itself would cause constipation, and this might lead to the supposition that the case was one of obstruction of the bowels. Such mistakes are not infrequent. It was not shown that Mr. Swarbrick had been guilty of carelessness, much less of culpable negligence. We are therefore satisfied that the finding of the jury was an equitable one. Nevertheless, we must express our disapproval of the practice, which unfortunately is too common, of unqualified medical men attending patients and giving death certificates bearing the signature, or what appears to be the signature, of a qualified medical man who has never seen the case at all. In the present instance it appears that Mr. Swarbrick signed the certificate in Dr. Councillor's name; but in extenuation of the irregularity, it must be allowed that there was an inducement in the fact that he had previously been in possession of blank certificates—ready for filling-in,—which bore the real signature of Dr. Councillor.

THE CHOLERA IN ITALY.

DURING the week ending May 12th cholera has continued to prevail in Italy, and it has unfortunately enlarged its area of distribution. In the town and province of Brindisi 52 fresh cases and 18 more deaths have taken place, the disease showing some tendency to diminution during the past two days of the week. But the port town of Bari, situated some seventy miles higher up the Adriatic coast, has also become infected, the fresh attacks and deaths notified as having occurred during the two days May 9th and 10th reaching 61 and 21 respectively. No fresh news as to the prevalence of the disease at Vicenza has come to hand since May 5th, when two cases and three deaths were announced as having occurred on that and on the preceding day. But in the city of Venice fresh cases and fatal attacks are steadily maintained, the former varying daily from 9 to 13 and the latter from 3 to 8. In all, 62 cases and 25 deaths were reported as having occurred during the week.

HEALTH AND ATHLETICS.

IT would be superfluous to state that athletes are generally, as they ought to be, the healthiest of mankind. This is the rule, and it follows that deaths incurred by athletic exercise are usually the result of accidents which may with due care be avoided. There are exceptions, however, and among such must be numbered a young man who is reported to have died suddenly at Rockwell College, Cashel, from heart disease, after winning a race. Such a sad occurrence, though rare, is probably not unique. As we write we can recall a nearly similar instance of sudden death. The moral is obvious, yet it may very possibly pass unheeded by many who would do well to consider it. Athletic men are not prone to trouble themselves with valetudinarian fancies, and we certainly have no idea of intro-

ducing them to this unprofitable line of thought. At the same time, it would be well if all such, before inaugurating a course of severe bodily effort, were to assure themselves that no vital flaw entailed a wise abstinence upon them. Boys at school are apt to be wholesomely free in the use of their muscular powers, and gain thereby in strength and resolution far more than they lose by fatigue. Yet it is most necessary that the exceptions among them also should be known and suitably restrained when necessary by their masters. With respect to heart disease, the question of strain is a most important one, especially since the latent weakness may not be apparent under ordinary exertion. It is surely no more than reasonable to make some allowance for an organ which, though unsound, is often capable, if protected from heedless risk, of passing successfully through the work and worry of an ordinarily active life.

POST-MORTEM EXAMINATIONS IN CRIMINAL CASES.

IT is not long since we took occasion to insist upon the desirability, nay, the necessity, of having a thorough post-mortem examination made in all cases where the death might entail a criminal charge. We are glad to find our views have received the judicial sanction and support of Mr. Justice Fitzjames Stephen, who at the present Stafford Assizes took occasion to say, in regard to a charge of wilful murder by shooting, that a post-mortem examination should have been made so that the exact cause of death might have been ascertained and recorded. It is only common fairness to the accused that the medical evidence which may be adduced at the trial should, as far as possible, relate to ascertained facts. Medicine is not an exact science, and many issues of life and death will ever remain enigmatical; but this is just the reason why every endeavour should be made to clearly distinguish between what is certain, what probable, and what possible.

PHOTOGRAPHING THE UTERINE CAVITY.

A SWISS physician describes a plan of introducing wadding tampons and laminaria tents into the uterus, by which he has succeeded in dilating the organ to such an extent as to be able, by means of reflectors, to get a complete view of the whole cavity in cases of carcinoma, fibrous polypi, fibromata, and endometritis. Not being content with ocular inspection, he has also contrived to obtain photographs of the cavity. New inventions for uterine exploration, medication, and instrumentation are often of a somewhat hazardous nature, but we tremble to think of the future of some female patients if photographing the interior of the uterus should ever become one of the medical fashions of the day.

SMALL-POX HOSPITAL PROVISION.

THE Metropolitan Asylums Board are evidently weary of waiting for the consent of the Local Government Board to erect at Gore Farm, Darenth, a new small-pox hospital for convalescent patients. Sir Edmund Currie naturally pointed out at their meeting on Saturday that it was necessary for the Managers to complete their plans before the next epidemic prevalence of this disease, but the difficulty with the Local Government Board is probably less the unwillingness to allow the expenditure of public money than to determine the best method in which this money can be laid out. The aggregation of cases of small-pox has been definitely shown to be attended by disastrous results, and the continued investment of large sums in the same manner as heretofore is not, in face of this evidence, in accordance with common sense. The Managers are without responsible advice in this matter, and will doubtless, if necessary, shelter themselves under this plea, but the Central Board are differently circumstanced in this respect, and will obviously have to adopt some other course than that which has been attended by so many misfortunes. Certainly the fact is very evident that the outside relations of these institutions can no longer be neglected. It is impossible that they should only be thought of as temporary homes for sick persons; their influence upon the public health of the metropolis must be considered in all its details, and for this purpose it is necessary that the question of dealing with small-pox in London should be made the subject of further study, and ample means provided for watching the effects of any action which results from the conclusions to which these Boards may come.

THE LATE DR. AUSTIN FLINT.

THE *New York Medical Record* of April 24th contains a memoir of Dr. Flint by A. Jacobi, M.D., President of the New York Academy of Medicine; also a paper entitled "Reminiscences of Professor Austin Flint." It is natural that the friends and countrymen of the deceased physician should not "let die" his virtues and his work, which leave such a model for future physicians in his and in all countries. Dr. Flint was English in his descent from Thomas Flint, a Puritan, who emigrated from Derbyshire to Concord, Mass., in 1638. His father, grandfather, and great-grandfather were physicians in Massachusetts. On our side, we shall remember Dr. Flint, not only for his English blood, but for his contributions to medicine, his fine form and face, and his genial and frequent visits to us, which we had come to regard as a sort of annual treat.

COMPLETE QUALIFICATIONS FOR COMPLETE EXAMINATIONS.

IF the unsatisfactory Medical Bill of the Government is to be proceeded with, a strong attempt is likely to be made to secure a recognition of the full qualification of those who have been examined in all branches of the profession by any one corporation or university. The idea that a man ought to go to two corporations to pass practically two similar examinations has its origin in consideration for, not the benefit of, the public, but of the corporations. And yet Sir Lyon Playfair proposes virtually to continue this injustice by requiring one corporation to join another, even if its examinations be complete—as, say, in the case of the Royal College of Physicians of London. This is to legalise injustice.

THE HOSPITAL SUNDAY.

IT is to be hoped that the reluctance of one or two hospitals to take an active part in organising local meetings in the week preceding Hospital Sunday will be overcome. Dr. Wakley's proposals have been heartily adopted by the Hospital Sunday Fund, and especially by its most active members. And it would be a pity to see anything like apathy on the part of leading hospitals.

ASEPTIC PREPARATIONS.

SMALL glass capsules, hermetically sealed, according to the *Pharmaceutical Journal*, are coming much into use for the storage and preservation of various fluids. M. Limousin proposes to employ them for keeping solutions for hypodermic use. The capsules, with long capillary tubes, are first sterilised by heating for some time at a temperature of about 200° C., and may then be filled in the ordinary manner, or by injecting with the hypodermic syringe and sealed in the flame of the spirit lamp or Bunsen burner. When required for use, the point is broken and the fluid transferred to the syringe by one slow stroke of the piston.

PROPOSED CHALLENGE SHIELD FOR THE VOLUNTEER MEDICAL STAFF CORPS.

AN effort is being made to raise the sum of £40 for the purpose of obtaining a Challenge Shield for the Volunteer Medical Staff Corps, the trophy to be competed for by the members of the corps, and to be presented to the company that is considered to be most fit to receive it. The shield will be competed for annually, and, although considered as the general property of the corps, will be retained by the company who may have gained it for that year. Should a greater sum be subscribed than is asked for, either a second prize will be given or a more expensive shield than the one now contemplated will be ordered. Subscriptions (which are limited to one guinea each person) to the amount of £21 have already been received.

ITALIAN HOSPITAL AT CONSTANTINOPLE.

Il Morgagni (1st inst.) gives a description of the hospital which was erected in 1876 by the Italian Government in the Tophané quarter of Constantinople. The sum expended was £12,000, and the institution covers an area of 3800 metres facing the sea. The *personnel* consists of two paid medical officers, fourteen sisters of charity, and four male attendants. The chapel is an architectural gem. Public and private wards, lifts, bath-rooms, and a constant supply of fresh and salt water are provided. Paying patients are admitted, with reduced terms for those of Italian nationality. In 1884 the male patients numbered 309; the females, 41; and the deaths 28. An income of about £400 was derived from the paying patients, about one-third of the total expenditure, exclusive of medical attendance. The balance was defrayed by the Italian Ministry of Foreign Affairs. A lunatic asylum, adapted for twenty patients, and the consular prison, adjoin the hospital.

"NO EVIDENCE" OF INSANITY.

IT matters little practically that in a recent case of shooting the plea of insanity was not set up, although the behaviour of the prisoner was so strange that the Lord Chief Justice commented on the fact that no legal evidence had been offered. The accused, on conviction, was sentenced to imprisonment for eighteen months with hard labour, so that he will be under observation. Disastrous results might have occurred had he chanced to be acquitted. It is clearly necessary that something should be done to ensure the consideration of this question of sanity or insanity in every case before a prisoner is arraigned. We hold that the preliminary issue of responsibility ought logically to be already determined when the secondary issue of guilt is raised.

CENTENARIANS.

PROFESSOR HUMPHRY (Cambridge) is engaged in collating for publication the reports which friends have been good enough to send him respecting centenarians; and he will still be glad to forward a form for particulars to any member of the profession who will kindly take the trouble to fill it up from his knowledge of a person who has attained or passed the age of a hundred years.

FOREIGN PROFESSORIAL CHANGES.

PROFESSOR HERMANN EMINGHAUS of Dorpat has accepted the Professorship of Psychological Medicine in Erlangen. Professor Rühle of Bonn, who has just returned from six months' leave in Italy, resumes his lectures during the present summer semester. Dr. R. Hirzel, Extraordinary Professor of Pharmacy in Leipsic, has accepted an appointment at Jena. Professor Sohnke of Jena has been appointed Professor of Physics in Munich. Dr. Adolph Schenkl has been appointed Extraordinary Professor of Ophthalmology in the German Medical Faculty at Prague. This university has to lament the death of Dr. E. Linnemann, Professor of Chemistry. Dr. Ovsyannikoff, who has been for many years Professor of Physiology at the University of St. Petersburg, and was formerly Professor in Kazan, has retired.

HOW TO DETECT ACETONE IN URINE.

IT is stated by Mons. P. Chautard that the presence of acetone in urine or pathological liquids may be readily detected by adding a drop of an aqueous solution of magenta decolourised by sulphurous acid to the suspected liquid, when, if acetone is present, a violet colour is produced, the intensity of which is proportional to the amount present. In dilute solutions the colouration does not appear until after four or five minutes; if the amount of acetone is very minute, the urine or other liquid may be distilled, the first portion that comes over being examined. In this way a very minute proportion of acetone may be detected.

THE next half-yearly dinner of the Aberdeen University Club, London, takes place on Wednesday, the 19th inst., at the Holborn Restaurant. The Right Hon. Lord Watson, formerly M.P. for the University, will preside; and among the guests expected to be present are the Principal (Dr. Geddes), Sir Peter Lumsden, and Sir Donald Stewart.

THE spread of venereal disease amongst the native population and white settlers at the Cape is exciting great attention in the colony, the reports of the district surgeons which were recently laid before the local Parliament containing an appalling account of the ravages of the disease in its most malignant and loathsome forms.

THE ceremony of unveiling the statue by Mr. Brock, A.R.A., of the late Sir Erasmus Wilson, will take place at the Royal Sea-bathing Infirmary, Margate, on Tuesday, the 25th inst., at 1.30 P.M. Sir James Paget, Bart., will present it to the Infirmary on behalf of Lady Wilson.

THE Medical Society of London has awarded the Fothergillian Gold Medal to Dr. Strahan, of Belfast, whose essay is entitled "The Nature and Varieties of the Fevers prevalent in the United Kingdom."

THE deaths are announced of Dr. Nicolai Voronzovski, Professor of Operative Surgery in Moscow, and of Dr. Rud. Monnier, Emeritus Professor of Anatomy in Val-de-Grace.

THE use of calf lymph for vaccination has been made compulsory in the Grand Duchy of Baden, from March 1st.

CITY ORTHOPÆDIC HOSPITAL.—The thirty-fourth anniversary festival of this hospital was held on the 6th inst., the chair being occupied by H.R.H. the Duke of Cambridge. During the past year 2590 cripples have received treatment, and the total number of patients since the charity was established in 1851 is 48,900. The financial condition is highly satisfactory, the receipts having during 1885 exceeded the expenditure by £175. Donations and subscriptions to the amount of £1000 were announced by the secretary.

MR. LE PAGE, a surgeon in Salford, has recovered damages, amounting in the aggregate to £2100, as compensation for injuries and loss sustained by him owing to an accident on the Lancashire and Yorkshire Railway, the particulars of which we gave at the time of its occurrence.

A REVIEW OF THE PRESENT SYSTEM OF MEDICAL EDUCATION IN LONDON.

BY W. MOXON, M.D.

I SUPPOSE it will be allowed that education does not exist for the benefit of universities, but universities for the benefit of education. Graduation, the special endowment of universities, exerts a fascinating and powerful attraction in the encouragement of learning. A degree is the thorough student's proper reward. The hope of it is his worthiest ambition. A degree is due to him after he has passed through a sufficient course of methodised study. This truth is universal to universities. What is graduation? This is no idle question, because the true signification of a word may be buried with its derivation, and its proper meaning may be utterly forgotten so as to be denied to the very things which the word was intended to signify, and that at a time when the word is wanted as a just sanction. Surely, the idea involved in graduation is the fixing of steps or grades in a systematic course of learning which the graduate passes through in obedience to rules of method laid down by the degree-giving body or university.

This idea of graduation is no mere play on words, and the meaning of graduation should not be forgotten when a degree such as M.D. Brussels, &c., is given to those who have taken no methodical steps under the governance of the university that gives the degree. At present we witness a strange and most unfair and unjust anomaly. A degree, which properly means a token of graduate progress, is given—say at Brussels—where no steps of progress were prescribed or demanded; and this degree is given for learning which was obtained by a well-ordered system of steps of progress in London, steps prescribed by so-called "colleges" in London which are able to prescribe the steps and ensure the learning, but cannot grant the degree. It is not contended that the learning tested at Brussels is insufficient to justify the degree, and the degree of M.D. Brussels is held to be valid in this country.

In London we have graduation without degrees. The student of medicine in the metropolitan schools is conducted by the Royal Colleges of Physicians and Surgeons through a graduate's course of teaching and of examinations, and he is rewarded with the same title which the father obtained for a tithe of that training which the son has to undergo—a title which no longer suffices for the requirements of general practice. The result is to blight the spread and elevation of medical education in this vast city. Public attention should be concentrated on the causes of this anomaly, so that a flagrant injustice may be swept away. Systematic and graduated education in medicine has developed itself in the curricula of the Royal Colleges. It is now necessary that this should be duly recognised, and that the right of conferring degrees in due proportion to methodised attainments should in a fitting manner be attained by the colleges. Thirty years ago the system of medical instruction in London hospitals was as crude as the system of examination at the Royal Colleges was undeveloped. At that time the student spent, very much as he liked, a period of three years in preparing for an examination for the membership of the College of Surgeons and for the licence of the Apothecaries' Company, the diplomas usually taken. The examination consisted of questioning *vivâ voce* by four examiners, who severally inquired into the candidate's knowledge, each for a period of a quarter of an hour. These quarter-hours spent by the candidate without interval at four successive tables summed up into an hour of more or less equitably agreeable conversation, and the hour's talk thus put together served as the only test of the candidate's fitness for the diploma of the college. It is not fair that the graduated course of instruction and examination now in force should give no better reward than the diploma so obtained thirty years ago.

The old system may perhaps have had some occasionally valuable advantages. It left men of genius to the play of their own energies, so that the man of energetic genius had a freer field. And men of no great general power had three years of comparative quiet all to themselves, in which to gather information, if and when they pleased, in the manner best suited to their particular lines of mental progress, if any. For although lectures had to be signed up, yet attendance was less necessary than signature in the matter of these lectures. To those who approve of freedom in study it might appear that these were the happy days. A man had time to arrange his knowledge into ready accordance with the purposes he must keep in view in the duties of practice. There was leisure for the process of pondering and ascertaining the relative gravity of the considerations he had to undertake. But there is no time for pondering now; indeed, the word has gone almost out of use with the loss of what it signified in more static times. If things had remained as they were thirty years ago, there would be no call for medical degrees from the Royal colleges. But the time of freedom is over. Men are severely trained now at the London medical schools, and they claim their due reward. The whole system has advanced to university proportions. The student is compelled to take in large supplies of science, not for mere direct use and purpose in his vocation, but imparted as means of mental culture. The curriculum is one of utility duly adorned; it amounts to university graduation in all but the title conferred, and now a title is claimed.

Thirty years ago the systems of the Royal Colleges had none of the characters of university training. There was no division into stages, no tutorship, no plan of study pursued step by step under supervision, with examinations to ascertain the thoroughness of the several gradations. There was nothing to give the signification of the term "graduation," and to ensure the developmental soundness of the graduate's progress. But all this is changed, so that at the present day it would be difficult to say what is really the difference between the course of study pursued by the student of a London hospital and the course of study followed by a medical undergraduate at a Cambridge college. There are good and indifferent students at both. Learning is not always thorough at either, but an average man at one or the other has the same things to learn in the same way. It must be remembered, too, that thirty years ago physical science had not any of its present university recognition. It was looked upon as not liberal education. In the last thirty years a great revolution has occurred in the university value of the several branches of learning, so that at Cambridge and elsewhere degrees are obtained almost solely in such sciences as are taught equally well in a parallel systematic course at the London schools of medicine. Thus it is true that not only have the Royal Colleges, with the London medical schools, actually developed in the last thirty years a university system, but in the same period the Cambridge and other university systems have been adopting the same lines as those of the Royal Colleges and London schools. In fact, the so-called Royal Colleges are not colleges; a college is a teaching body; the Royal Colleges are examining bodies, which govern the medical teaching colleges and schools of the metropolis. They are out of kind amongst colleges, much in the same way as the ugly duckling was out of kind amongst proper ducklings.

Is it not simply true that the system of teaching and examination now in force in the medical schools and in the Royal Colleges of Physicians and Surgeons is in fact and in deed a graduated course such as everywhere else leads to the conferment of a degree? A "teaching university" for medicine already exists in London. The teachers of the London schools are practically all of them Fellows of the Royal Colleges. In these Colleges they or their chosen representatives compose to a large extent the deliberative body which acts as a board of studies in that faculty of medicine which the Colleges constitute in fact, though not in name. Either directly, or but little indirectly, the teachers prescribe the lines of study and of examination. The examiners are chosen from amongst their number. Besides those actually engaged in teaching, the deliberative body or board of studies comprises the most experienced and distinguished leaders in medicine and surgery in the metropolis—men whose character has secured, and may be trusted to further ensure, the maintenance of a proper standard of requirement in the examinations. We thus have in the Royal Colleges a university organisation, so far as regards the medical faculty, complete in itself; and the relation of this organisation to the London University is significant. In fact, the examiners in the medical faculty of the London University are practically the very same persons as those who examine at the Royal Colleges, and the same persons as those who teach at the London schools.

The *personnel* is practically identical. They are the same persons, scattered in the schools, gathered in the Royal Colleges, and represented as a small minority by a few of their number at the London University. Already, in fact, the course of study and examination at the Royal Colleges represents the Pass degree in London Medical University education, and the London University degree represents the Honours degree. So that it might appear easy to arrange for the required extension of medical graduation in London by some form of union devised to incorporate the Royal Colleges in the existing London University, seeing that the *personnel* of the two institutions as regards the medical faculty is practically identical, and that all are moved by the same aims and interests for the benefit of the study of medicine in London. But those members of this *personnel* who are employed at the London University are subject to the power and tendencies of that University, and in fact their own views and the views of the body of metropolitan medical teachers have no more than a small and fractional influence there.

The London University is not free from the conditions of its origin, which conditions must be kept in mind in considering the services that it fulfils. The object of those who first moved in its formation was to found a teaching university. The original shares—some of them I now hold in hand, they are of no present or prospective pecuniary value—were subscribed in order to make provision of university education for such persons as, not being members of the Church of England, were at that time excluded from privileges at Oxford and Cambridge. The history of this attempt is very instructive. The forces under whose play the project came into action succeeded in completely dividing its issue into two distinct and separate institutions. One of these institutions represented the teaching part of the scheme, and now stands in Gower-street as University College, London; the other institution was the University of London, which represented the degree-giving part of the scheme, and now stands in Burlington-gardens. These two institutions, which are twin offspring of a divided germ, have been borne apart and made more and more separate. History represents tendency. The line of development which the University of London has pursued was determined by the pressure under which it entered into existence. This pressure was weighty. The Universities of Oxford and Cambridge and the College of Surgeons brought all the power they could to suppress it. From 1830 to 1835 the hopes of its parentage were deferred. When at last a body was formed with the requisite privilege and means of granting degrees, that body owed its constitution largely to the hitherto successful opposition of those who had feared easy rival degrees.

Under vast pressure a Senate of great weight had been brought together. One main principle on which this Senate was composed appears to have been of the nature of a guarantee that the Nonconformists did not get their degrees easily. This principle of guarantee led to the elevation and maintenance of a lofty standard of requirement. And though the Charters of 1850, 1858, and 1863 brought some modifications into the growing University, yet the University itself has not only remained under the influence of that Senate of guarantee, but it has achieved exalted distinction in very consequence of the elevation of standard which the high level of examination determined by that Senate has ensured to the degrees conferred by the London University. And now this elevation is the distinctive and unalterable character of the London University degrees. The function of the University has been developing before it in all the phases of its growth. Its progress has been upwards, always demanding more and more attainment in those who would belong to it. Its standard is the edge of the unattainable to ordinary class-men, the wholly unattainable to ordinary pass-men. At some point all ordinary candidates are sure to come to grief. The Senate cannot turn away from the history and lower the character which has brought the University into such repute. The Senate is bound by the requirement which it has itself created, and which it alone can fulfil. This demand is for such a degree as (1) shall be attainable by all English subjects, irrespective of the mode and place of tuition; (2) shall be attained only through a very high standard of acquirement. In the plastic stages of its first origin the embryo University refused local connexion and limitation. It declined to be turned to ordinary uses, such as the use which the Oxford, Cambridge, and other Universities fulfil in giving Pass degrees to men whose academic virtues do not include superior power of answering "stiff" questions. It refused to give degrees as the natural reward of a graduate course to men of ordinary ability, as other universities do. The full-grown London University cannot now localise its wide sphere of operation, nor stoop to common mould. If it lost its universal character and became a town affair, it would wholly forsake the means of its present elevation, and would fall. No friends of the University will take measures that could only issue in restricting its range to the metropolis and lowering its standard to ordinary levels.

Let it be sufficiently understood that the metropolis has within itself, independently of the London University, and already in separate operation and waiting to be combined in common action, all the machinery for a local university. The separate parts want only union, recognition, and a name. With the Royal Colleges of Physicians and Surgeons as a Medical Faculty, with University and King's Colleges as a Faculty of Arts, and with a Faculty of Science developed from the Kensington and Jermyn-street Schools—already there is a Faculty of Music with right of conferring degrees,—why should not an "Albert University" take its place on the Embankment?

THE GERMAN MEDICAL CONGRESS.

(*Continued from p. 896.*)

THE subject of the Pathology and Treatment of Diabetes Mellitus was opened in a paper by Dr. STOCKVIS (Amsterdam), who began by showing that the problems of its etiology had become more complex than was supposed when Claude Bernard discovered the glycogenic function of the liver. Diabetes depends on a deeper disturbance than glycosuria and glycæmia, and its final explanation will not be found until the whole of the nutritive processes of the organisms, its organs, and cells are known. It is due to changes in several organs—at least, in the intestine, liver, and muscles,—and must be regulated by a central organ as yet undetermined. Several points were touched upon. 1. *The relations of diabetes to albuminuria.* The latter is generally considered as due to the increased work thrown upon the kidneys, and is regarded as a late symptom; but Professor Stockvis finds it in all cases in amount proportionate to the severity of the case. Often albumen appears to alternate with sugar, the reason being that, owing to the polyuria, albumen is difficult to detect in the period of severe glycosuria; so that, when both glycosuria and polyuria subside, the albumen seems suddenly to appear. In other cases careful examination is needed to bring the diabetes to light, owing to the predominance of albuminuria. The symptom is not explained by mere variations in blood-pressure in the kidneys, such as are produced in experimental glycosuria. It may depend upon changes in the albumen of the blood, or more probably upon renal changes. Various conditions are described, from simple catarrhal nephritis to the contracted kidney, as well as hyaline degeneration of the secreting epithelium. The glomeruli are probably the regions the denutrition of which gives rise to albuminuria, and the foreign matter circulating in the blood acts as an irritant. Thus acetone, aceto-acetic acid, butyric acid, and grape-sugar, when introduced into the veins, excite albuminuria. Prognostically, albuminuria is by many regarded as a very fatal complication, but Bence Jones considered that it was better to have both diseases together than diabetes or nephritis separately. Two kinds of cases may be distinguished. In the one albuminuria occurs in small degree during glycosuria, and becomes more marked on the disappearance of the latter, and later entirely disappears. This variety is of no consequence. In the second variety the albuminuria, previously marked, persists, and is indicative of nephritis after the disappearance of the diabetes. This occurs in one-third of all cured cases of diabetes; but the renal disease can hardly be considered as the cause of the cure of the diabetes. Treatment is governed by general therapeutic principles, especial attention being directed to strengthen the cardiac power and to regulate digestion. 2. *Diabetic coma* has excited much attention since Kussmaul's writings twelve years ago. Excluding intercurrent

diseases, as pneumonia &c. diabetics usually die in one of two ways—(1) with all the phenomena of collapse, slight somnolence, and toxic symptoms, without sweetish odour of the breath, without acetonæmia and diacetonæmia, or (2) with predominance of toxic symptoms. The first form is to be ascribed to cardiac failure, and ought not to be regarded as self-intoxication. In the second form there are always volatile products in the urine—acetone, diacetic acid, &c. This is the special coma diabeticum, with symptoms pointing to profound disturbance of the central nervous system by auto-intoxication. A sudden accumulation of noxious material in the body can only be brought about by its sudden increase, and especially by hindrance to its excretion. Such conditions would occur through nephritis, and therefore in diabetic coma there is invariably albuminuria with all kinds of casts. It is nothing but a special form of uræmia, the differences depending on the special conditions giving rise to them. When large quantities of grape sugar are injected into the blood of animals the breathing is affected as in diabetic coma. These rare cases of coma without albuminuria must be ascribed to a sudden enormous increase of tissue disintegration, which the healthy kidney cannot cope with. Death by coma is more frequent than by bacillary phthisis in diabetes. It favours no age or sex, and occurs equally in so-called severe and slight cases. But when there is marked pulmonary phthisis diabetic coma never occurs. In the first form fatigue plays a great part; the second variety is especially excited by excesses, which derange digestion and promote the formation of abundance of toxic substances. These materials do not depend upon an animal diet, but their precise source is yet undetermined. As to treatment, the first variety calls for cardiac tonics; in the second, or true diabetic coma, although there is no really rational method of dealing with it, the most important measures lie in prophylaxis—diet, purgation, and strengthening the heart-power. 3. *The dietetic treatment of diabetes*, of which the chief direction is a diet of albumen and fat, taking care not to overburden the stomach, and absolute withholding of carbohydrates. Milk, whether pure or skimmed, is forbidden; only curds allowed. Milk sugar has been held to be harmless, but this is at least doubtful. Worm Müller thought that in the diabetic it is converted into grape-sugar, whereas, in the healthy, copious milk-drinking is followed by slight excretion of lactose in urine. Recent researches prove that in health it appears in the urine partly as lactose and partly as glucose and galactose, in the slightly diabetic as large quantities of the latter, and but small amount of lactose, so that there is no essential difference. Abstinence from food for twenty-four hours with a view to diminish the excretion of sugar has no curative effect. Exercise is strongly recommended, especially in corpulent diabetics, with much uric acid in the urine; but excess is here also to be avoided. Mental rest is of chief importance. Dr. HOFFMANN (Dorpat) said that in the definition of the disease glycosuria cannot be separated from diabetes, in which there are no invariable anatomical changes. Hence various forms of diabetes are distinguished. Although "pancreatic diabetes" must be discarded, yet one may recognise a "neurogenic diabetes" as distinct from the "constitutional." He had collected eighty cases in which diabetes was ascribed to cerebral and spinal concussion and other traumatism, cases which agreed in the fact of injury, lack of heredity and prodromal nerve disorder, absence of tendency to furunculosis or arthritis; no polyphagia or polydipsia; no cataract; cases not of long duration, and often terminating in recovery. Every grade, from the mildest glycosuria to the severest diabetes, is represented in this series. Contrasted with such cases is the diabetes of the corpulent, with furunculosis, cataract, arthritis, very chronic course, and rare recovery. In treatment, too, the division into the accidental and constitutional groups is desirable, and is more valuable than that into mild and severe cases. The accidental forms—where curable—yield to animal diet; the constitutional, although showing an abatement of glycosuria upon such diet, exhibit other symptoms which are unfavourably affected by the restriction. Tonics—as iron, cod-liver oil, and quinine, and above all the Carlsbad cure—are suitable. Alkalies, of value in some cases, are useless or harmful in others. Opiates have latterly unfortunately been placed in the background, but their value is undeniable; only small doses should be given. Salicylic acid can be used with advantage in mild cases; in some cases it must be cautiously prescribed.—Dr. VON MERING (Strasburg) advocated muscular exercise, the muscles utilising the sugar and sparing the nitrogenous material; in one case five or six hours' heavy work produced a diminution in the urinary sugar from 50 to 5 grammes.—Dr. FINKLER (Bonn) had failed to induce glycosuria by ligature of the pancreatic duct or extirpation of the gland, by intravenous or intraperitoneal injection of pancreatic ferment. If diabetes is connected with the digestive function there must be other factors than lack of secretions. Some have attributed it to diseases of the cœliac plexus, and changes are often found therein. That the nervous system has to do with diabetes is shown in the reflex production of glycosuria by stimulation of the intercostal nerves, as well as other experiments proving that sensory nerves act reflexly upon the conversion of carbohydrates.—Dr. BINZ (Bonn) said he had found that injection into the blood of dogs and cats of neutral or faintly alkaline sodic butyrate caused coma and fatal paralysis. This was not due to concentration of the blood, for the same amount of sodic chloride or acetate gave rise to no such symptoms. The research confirmed the views of those who regarded oxybutyric acid as one of the causes of diabetic coma.—Dr. BAUMLER (Freiburg) pointed out that albuminuria of diabetes was of various pathogenesis and import; in some cases—fatal from carbuncle or pneumonia—the albuminuria was due to a bacterial nephritis. In the diabetes of the corpulent it may be due to chronic changes in the vessels, heart, &c. He asked for reports on the effect of von Duhring's treatment, consisting in the free administration of carbohydrates.—Dr. HERTZKA (Carlsbad) pointed out that diabetes was not a disease, but a symptom like icterus, and was evoked by manifold lesions, especially of the nervous systems. A man may therefore be a diabetic without excreting sugar. The dermatoses which precede glycosuria depend on the diabetic diathesis.—Dr. NAUNYN (Königsberg) had seen the best results from restricted animal diet, and had not observed any ill effects from it.—Dr. SCHNEE (Carlsbad, Nice) related a case of diabetes in a child whose father had suffered from syphilis. It was cured by mercurial treatment. Encouraged by this case he had prescribed mercury in seventy other cases, and in fifty-three the diabetes was cured.

A paper was then read by Dr. v. MERING upon Experimental Diabetes, in which, after alluding to previous work which indicated the part played by the glycogenic function of the liver, he described experiments with a glucoside—*phloridzin* ($C_{21}H_{24}O_{10}$), extracted from the root-cortex of fruit trees,—which, taken into the stomach, excites diabetes, in proportion to the dose administered. Whilst curare fails to produce glycosuria in starving animals, phloridzin succeeds; and to show its independence of the liver, he administered the substance to animals in whom the hepatic function had been destroyed by phosphorus. Sugar appeared in the urine in such animals, and also in geese after the liver had been extirpated. In starvation diabetes from phloridzin is accompanied by increased excretion of urea; in animals kept on flesh diet there is no such increase; and in this respect, as well as in the amount of sugar in the blood, this form of artificial diabetes differed from the actual disease. The author believed that renal changes formed an important factor in glycosuria.

Dr. FINKLER (Bonn) read a paper on the Treatment of Diabetes by Massage. In thirteen cases there was notable diminution in the amount of urinary sugar—e.g., from 400 to 120 grammes per diem,—the favourable result being attributed to increased metabolism. These results were obtained on a mixed diet, and the method was one suitable for patients incapable of active muscular exercise.

Professor STOCKVIS, in his reply, strenuously advocated restriction to animal diet, from which he had never seen any ill effects; but the diabetic should be careful not to over-eat himself, for derangements of digestion are dangerous.—Dr. HOFFMANN also replied, and pointed out in reference to v. Mering's experiments that phloridzin is a glucoside, and might therefore yield sugar directly.

Dr. RUMPF (Bonn) read a paper upon Syphilitic Diseases of the Vascular System. He pointed out that, whereas Heubner regarded disease of the intima as specific, Köster and Friedländer described arteritis obliterans as proceeding from an affection of the vasa vasorum, and therefore commencing in the media; whereas Baumgarten considered the adventitia to be the seat of such disease. A case was described which exhibited the rare condition of a gumma growing in the wall of the basilar artery causing thrombosis. Allusion was also made to forms of diffuse syphilitic infiltration. In

some specimens bacilli were found, but were regarded as associated with the regressive changes, and not as pathogenic.—Dr. LITTEN remarked that syphilitic vascular disease has no special characters. The anatomical changes were the same as those observed in chronic nephritis, and produced experimentally. The chief change is an endarteritis, which leads to obliteration of the channel, and the pathological result depends on the functional importance of the affected artery. A special feature in disease of the cerebral vessels is the rapidity with which cure follows mercurial inunction.—Dr. RUMPF replied by pointing out that his case was not one of simple chronic endarteritis, but of a gumma due to the localised action of the virus.

Dr. KNOLL (Prague), read a paper on Respiratory Innervation. According to Langendorff and Nitschmann the automatic respiratory centre resides in the spinal cord, the medulla having only a regulating function; the arrest of breathing on separation of the medulla being attributed to stimulation of depressor fibres; but the more recent experiments of Rosenthal tend to confirm the older notion that the respiratory centre is situated at the end of the calamus scriptorius. The centre is stimulated mainly through the blood, but whether from excess of carbonic acid or lack of oxygen is an open question. The subject of so-called blood-apnœa by excess of oxygen was discussed, the excitability of the centre being lowered thereby. The notion of a special heat-dyspnœa was rejected, it being shown that clinically there may be very high temperatures without any influence upon respiration. The nerve-paths of respiratory stimuli were enumerated, and the reflex effects of irritation of the nasal and laryngeal mucous membranes especially mentioned. Traube's view that excess of carbonic acid in the lungs causes a centripetal irritation of the vagus is disproved by the fact that the presence of carbonic acid in the lungs does not excite inspiratory movements.

Dr. UNNA (Hamburg) read a paper on Leprosy. Mention was first made of the fact observed by Lutz that the bacillus leprœ is really composed of rows of cocci, and should therefore be termed streptococcus, and that by employing various combinations of reagents (iodine, iodide of potassium, hydrochloric acid, peroxide of hydrogen) in Gram's method of staining, it was found that only when there was free or nascent iodine the coccus structure become manifest. Reference was also made to the treatment of leprosy by an ointment made with reducing agents, especially pyrogallic acid (10 per cent.), followed by icthyol.—Dr. TOUTON (Wiesbaden) stated that he had been enabled to demonstrate lepra-bacilli within cells and even within the lumen of sweat glands. He also asked whether Dr. Unna had examined the blood for bacilli, and whether such observations were made during or in the intervals of the eruption of lepra-nodules. He did not agree with Dr. Unna's histological methods, which were also characterised by Dr. NEISSER (Breslau) as unsuitable, and their results as incorrect and artificial.

(To be concluded.)

DR. RICHARDSON'S LECTURES ON ANIMAL OR VITAL MECHANICS.

MATERIALS FOR CONSTRUCTION.

THE second lecture of the above course, delivered on Monday, the 10th inst., before the Society of Arts, was devoted to the subject of the materials used by Nature in her mechanical works. These, the lecturer said, were so distinctive that we might from them form a fair conception of the physical condition of the planet at the time when natural mechanics began to have an existence. The number of parts entering into the natural constructions—fewer than those used by man in his works—were considered by the lecturer, first from their elementary forms and afterwards from the compounds produced by the elemental combinations. The elements used by Nature were divided into four groups:—(*a*) The gases: oxygen, hydrogen, nitrogen. (*b*) The non-metallic solids: carbon and sulphur. (*c*) The metals: calcium and iron. (*d*) The metalloid: phosphorus. The respective uses of these elements were briefly defined, with the explanation of an experiment made by Dr. Richardson in 1869, in which all the elements, except the carbon, that formed the body of an animal, a smelt, were dispersed, by the immersion of the body of the dead animal under molten lead. The carbon remained intact, and floated to the surface of the molten lead in the precise form of the animal, as its mechanical elementary skeleton, the solid basis of its construction. The uses of the elements are fairly known, except in regard to the metal iron. Iron, the lecturer said, is essential to some physical vital purpose, but what that purpose is he could not venture to state. It had been thought that iron had some relation to the colour of the chief fluid of animal organisms, the blood; iron had been supposed to be a carrier of oxygen; he had himself supposed that it might be a conductor of an electrical current; but against each and all of these views there were objections which at present were unanswerable.

From the elements Dr. Richardson passed to the compound structures formed by elemental combinations and used by Nature in her mechanics. He classified such compounds for study into seven great groups: (1) The gelatinous; (2) the resistant or bony; (3) the contractile—muscular; (4) the transparent—lenses and humours; (5) the receptive—nervous centres, screens, and cords; (6) the elastic—elastic tissue, wherever distributed; and (7) the aqueous—blood, fluid secretions, fluid excretions. The organs and mechanisms made or formed from the compounds thus specified were now passed under review, and by the electric light there was shown on the screen a large number of illustrative designs, many of them direct photographs from the natural parts themselves. Under the first division of compound structures the membranous structures were surveyed as investments, as valves, as tubes, and as basements; they were followed by views of ligaments, cartilages, tendons, and fasciæ, and so on through the other groups, osseous, muscular, lenticular, nervous, and elastic. In the course of the verbal descriptions which accompanied the illustrations, the lecturer indicated how the character of a structure might be changed by the introduction into it of even one new element, such as sulphur or phosphorus. He dwelt also on what may be called the natural choice or selection of elements for particular objects, as the light, malleable, strong metal calcium for the composition of the solid resistant structure of bone. He exhibited a carefully prepared table in which the elements used by man in his mechanical inventions were shown to exceed in number those of Nature, while including all that she uses in her work; then, dwelling on the notion of the ancient philosophers, that natural mechanisms were made out of four elements—air, water, earth, and fire,—he explained that in a general sense the ancients were correct: for air yielded oxygen and nitrogen; water yielded oxygen and hydrogen; the earth yielded oxygen, calcium, sulphur, phosphorus, iron, and carbon—altogether the material elements most wanted; while fire, or the motion which puts these elements into work, completes the series, and yields that endowment of vital property which leads to structure, form, independent action, motion of dead matter, life itself as manifested in its varied and infinite phenomena.

A DAY WITH PASTEUR.

WE have been favoured by Dr. G. H. Brandt with the following description of a visit he recently paid to M. Pasteur at the École Normale:—

As rabies and Pasteur are the order of the day, it may be interesting to many of your readers to know how things are carried out at the École Normale. The patients, who have come from different parts of France and from abroad, reside in small hotels and lodging-houses in the neighbourhood, and have to come every morning at eleven o'clock to the laboratory to be inoculated. I am sorry to say that the waiting-room and inoculating-room are very small and very crowded, not only with patients, but with a number of medical men who come to witness the proceedings. Pasteur is at the door with his list in hand calling out for the patients of the different series who have to be inoculated. Series No. 1 is that which has to be inoculated for the first time, No. 2 for the second time, and so on. At one end of this small room is a table on which stand different glasses covered with a piece of gutta-percha sheeting, which contain the different

solutions of virus in sterilised broth. The inoculator has two assistants—one fills and hands him the syringe, the other helps the patient. To avoid the trouble of undressing, the patients lift their shirt from over the left side, thus exposing the left flank; the inoculator seizes the skin, lifts it up, plunges the needle deeply into the areolar tissue, and presses the piston down to the end. One gramme of attenuated virus is thus lodged under the skin. One hundred and ten patients go through this operation every morning. The first inoculation is made with virus that has been kept in broth for fourteen days, the second inoculation with virus of thirteen days, and so on, until at the end of ten days a virus of five days' attenuation is used. This completes the ten inoculations, which are supposed to be sufficient to preserve the patient from hydrophobia. In the cases of the Russians who were so severely bitten by a wolf, M. Pasteur thought it right to repeat the series of ten inoculations three times over. I saw the photographs of the unfortunate inhabitants of Smolensk, who were completely disfigured by the fearful lacerations of the face; one of them, a priest, had his under lip torn away; another had still a fang of the wolf stuck in his malar bone; these are still alive, but, as you know, three have since died. It is well to mention that these unhappy men only reached Paris fifteen days after the bites. *Déjeuner* puts an end to the morning work, and at 2 P.M. M. Pasteur is in his laboratory, surrounded by medical men from all parts of the world—Americans, Russians, Germans, Swiss, Portuguese, &c. We first went to the basement, where the rabbits are kept in wire cages—some to be inoculated, others which have been operated on; of these there are three or four dying or dead. The mode of death in the rabbit is quite different from that of man—they die of paralysis, without a struggle; however, in some very rare instances you see a rabbit die of symptoms resembling those found in the human being. Two dead rabbits are taken up daily to the laboratory. The spinal marrow is taken out, and cut into pieces about four inches long; one end is attached to a piece of fine wire, the other end of the wire being fixed to an appropriate stopper, and placed in a prepared glass bottle. The preparation of the bottle consists in heating it to about 150° C., cotton-wool being placed in the mouth, and at another opening at the bottom of the bottle. A thick layer of caustic potash covers the bottom of the bottle. A few hours after the piece of medulla has been placed in the bottle it acquires a glazed appearance, as if it had been varnished. A piece of this spinal cord is placed in sterilised broth and kept for fourteen days; this serves for the first inoculation, as mentioned above. The operation of inoculating the rabbits is done in the following way: A healthy rabbit is placed on a board lying on his abdomen; his hind legs are fastened to two lateral pegs, and the same is done to the fore-paws. The hair is cut off his head to the extent of about half-a-crown. Chloroform is given until the animal is quite insensible. A clean incision is made lengthways with a sharp bistoury, previously dipped in a solution of carbolic acid. The lips of the wound are kept apart with an eye speculum or dilator, any blood is mopped up with fine blotting-paper dipped in carbolic acid solution, and a revolving trephine is placed perpendicularly on the bone; in a few turns a small disc of bone of about the size of a threepenny piece is cut through, and extracted with a curved needle, also disinfected. The dura mater is thus exposed. A fine Pravaz needle is then inserted under the membrane, and two or three drops of a strong virus solution is injected. The speculum is removed, the skin sewn up, the ligatures undone, and the rabbit is allowed to come to, and is placed in his cage. On the seventh day the rabbit begins to feel the effects of the inoculation, and dies invariably on the tenth day. Two rabbits are thus inoculated every day, and two die every day, so that a supply of virus is kept up for inoculating rabbits and patients.

Nothing can exceed the politeness and kindness of M. Pasteur in explaining and answering our numerous questions. He is completely wrapped up in his subject, and, contrary to what has been hinted by some authors, keeps nothing hidden from anyone. He generally finishes by saying, "Gentlemen, I have told you everything I know, you have seen all I do, and now you know as much as I do." As we were questioning him, a paper was shown him in which there was a paragraph which said, "We can place no reliance on M. Pasteur's work, as so many cases of rabies appear many months—eighteen, twenty, and even twenty-four—after the bite of a mad dog." To this M. Pasteur answers: "This is not good reasoning, for statistics show that the great majority of cases have an incubation period of from twenty to sixty days. Cases of rabies happening before the twentieth day are very rare, and those after the sixtieth day are still more rare, so that our treatment includes the majority of cases. Six months have elapsed since young Meister was bitten by a mad dog and treated by my system; he is alive and well. So that it is not fair to condemn a treatment because time has not allowed the extremely rare cases of long incubation to show the result of our treatment. Statistics also show that there are about fifteen cases annually of hydrophobia admitted into the Paris hospitals, followed by fifteen deaths. Since we have begun our treatment there has been only one case admitted; this case was not inoculated, and death was the result." To the unbelievers M. Pasteur says: "Wait; time will reveal many facts connected with this question; and it is only by continued experiments and constant observations, carried on for a considerable time on hundreds of cases, that we shall be able to arrive at positive and definite results."

It is satisfactory to know that no evil results have followed the numerous inoculations already made. Several of M. Pasteur's students have inoculated themselves with attenuated virus, and, barring a slight red areola formed over the seat of puncture, no unpleasant symptom has ever shown itself.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Balsall Heath Urban District.—In so far as vital statistics are concerned this district has a satisfactory record for 1885. On a population of 22,495 the general death-rate was 14·3 per 1000, that for the principal zymotic diseases was 0·9, and infants under one year only died at a rate of 10 per 100 births registered. But Balsall Heath is not always so circumstanced. Thus during the previous year the zymotic rate reached 4·15 per 1000, and Dr. Leslie Phillips urges his authority not to be deterred from providing a proper hospital for infectious diseases by reason of a temporary cessation of the diseases for which such provision is intended. As a matter of fact, it is precisely at such times that hospitals can be best and most economically constructed; those erected under emergencies cannot be properly considered in their details, and the hurry leads to extravagance. Some few non-fatal attacks of the infectious fevers occurred, and opportunity was taken to secure the remedy of such faulty sanitary conditions as they were found to be associated with. Water is unfortunately still derived from surface wells, but eleven of them were closed during the year, their contents being considered unfit for human consumption.

Middlesex and Herts combined Districts.—For the twelfth time Dr. C. E. Saunders presents an annual report on this important district, and it is satisfactory to read an expression of opinion to the effect that it is doubtful whether any body of combined authorities can show a better record of work than has been performed in this district during the past ten years. Such work has secured a great general improvement of health, the mortality from the more preventable diseases has been diminished, and by the improvement of dwellings much additional comfort has been secured. During the past decennium the general death-rate has been reduced from 18·6 per 1000 to 16·4 on a population of some 90,000, which represents, during that period, a saving of some 1800 lives. In the *Barnet Rural District* the sanitary state of South Mimms remains very unsatisfactory, nothing of a permanent remedial nature having been effected, but in other parts of the district benefit has resulted from the laying on of the Colne Valley water. In the *Barnet Urban District* we are glad to learn that improvement has been effected in the matter of supplying the closets with water, for the defects in this respect have in the past led to much nuisance from stagnation of offensive contents in the sewers. No death occurred from diarrhœa during the past year—a result which may be, at least in part, attributed to the improvements effected in the matter of scavenging. The *East Barnet Valley Urban District* maintains its reputation

for healthiness. There has been no fatal case of zymotic disease due to any local circumstances, and great improvements have been effected in the ventilation and the automatic flushing of the sewers; but the need for disconnexion of house drains in some parts of the district is still great. In the *Berkhampsted Rural District*, water is much needed at Long Marston, but hitherto the cost has been found to be prohibitive. The infectious hospital in this district has again been found to be useful for the purposes of the *Tring Urban District*, where the authority contract for its use. In this latter district some progress is being made with regard to the disposal of the sewage, but it is evident that Dr. Saunders thinks the interference of the inspector of the Local Government Board, who considered under-draining of the purification area to be an unnecessary expense, as a mistaken act of the central authority, and he points out in this connexion that the lower part of the area is already water-logged. Diphtheria occurred at Apsley End in the *Hemel Hempsted Rural District*, and the need for sewers in the town which gives its name to the district is becoming a more and more pressing matter. New buildings and their plans are well looked after by the authority. In the *Watford Rural District* the diphtheria prevalence which occurred in this portion of Hertfordshire caused ten deaths. The need for water was much felt in Abbotts-Langley, but a company are now about to meet that want. Certificates under the Public Health (Water) Act are always required in the case of new dwellings before they are allowed to be occupied. The *Welwyn Rural District* is one of the least populous of the rural districts in the kingdom, and it had a death-rate of only 6·8 per 1000 during the past year. Old houses are faulty by reason of dampness, and waterclosets not properly provided with water so affect the sewers that the latter stand in need of some means for their automatic flushing. Indeed, a public water service for Welwyn town is a prominent sanitary want. In the *Hendon Rural District*, Pinner suffered from imported small-pox, and the roadways about Harrow station render the neighbourhood scarcely habitable. Houses are found unfit for habitation in several villages and hamlets of the *St. Albans Rural District*, where accommodation for the working classes is much needed. But the authority have no bye-laws, and hence have no control over building operations. Action under the Labouring Classes Lodging-houses Acts is suggested in order to meet a pressing want. It will thus be seen that in the various districts we have referred to all the more pressing sanitary requirements are brought prominently before the authorities concerned, and that skilled advice is always available to secure the removal of such conditions as tend to the injury of public health in the combined area. Excellent work results from time to time, and further improvements are almost continuously being carried out.

Bollington Urban District.—We are glad to learn that the question of providing Bollington with a proper water-supply bids fair to be at last dealt with. It is a matter that has been allowed to drag itself over a somewhat long series of years, but an engineer has now advocated an entirely new gravitation scheme, which is regarded as more satisfactory than any of the schemes formerly submitted. Some cases of diarrhœa during the past year are regarded by Mr. Allen as having been associated, in point of causation, with impure water or defective drainage—conditions which, as far as is found practicable under existing circumstances, are removed on detection. Amongst the nuisances dealt with are some "badly-drained ashpits." Any drain to an ashpit is bad, and we trust the remedy applied has been to raise the floor of the ashpit well above the level of the surrounding soil, and then to cover it with a roof. In this way wetness of contents, and the resulting offensiveness, will be avoided, and no need will exist for any attempt at drainage.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6177 births and 3585 deaths were registered during the week ending May 8th. The annual death-rate in these towns, which had been equal to 19·8 and 20·2 per 1000 in the preceding two weeks, further rose last week to 20·6. During the first five weeks of the current quarter the death-rate in these towns averaged 20·2 per 1000, and was 3·2 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 13·6 in Derby, 14·7 in Norwich, 15·7 in Wolverhampton, and 16·5 in Huddersfield. The rates in the other towns ranged upwards to 26·0 in Portsmouth, 28·3 in Preston, 28·8 in Bolton, and 29·1 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 382 and 364 in the previous two weeks, were 367 last week; they included 141 from whooping-cough, 114 from measles, 41 from diarrhœa, 32 from "fever" (principally enteric), 21 from diphtheria, 18 from scarlet fever, and not one from small-pox. No death from any of these zymotic diseases was recorded last week in Huddersfield; whereas they caused the highest death-rates in Portsmouth, Bolton, and Preston. The greatest mortality from whooping-cough occurred in Salford, Birkenhead, and Brighton; and from measles in Oldham, Portsmouth, Bolton, and Preston. The 21 deaths from diphtheria in the twenty-eight towns included 9 in London, 3 in Liverpool, and 2 in Halifax. No death from small-pox was registered either in London or in any of the twenty-eight large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had slowly increased in the previous six weeks from 7 to 19, had further risen to 27 at the end of last week; 11 cases were admitted to these hospitals during the week, against 6 and 3 in the preceding two weeks. The Highgate Small-pox Hospital contained 2 patients on Saturday last, no case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 319 and 296 in the previous two weeks, rose again last week to 309, but were 44 below the corrected average. The causes of 83, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Blackburn, Cardiff, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Bristol, Hull, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 20·5, 20·7, and 23·1 per 1000 in the preceding three weeks, declined again to 22·3 in the week ending May 8th, but exceeded by 1·7 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 17·3 in Paisley and 17·8 in Edinburgh and Leith, to 26·1 in Glasgow and 27·9 in Perth. The 550 deaths in the eight towns showed a decline of 21 from the numbers returned in the preceding week, and included 20 which were referred to whooping-cough, 17 to measles, 12 to diarrhœa, 8 to scarlet fever, 2 to diphtheria, 2 to "fever" (typhus, enteric, or simple), and 1 to small-pox; in all, 62 deaths resulted from these principal zymotic diseases, against 34, 46, and 51 in the preceding three weeks. These 62 deaths were equal to an annual rate of 2·5 per 1000, which was 0·4 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 15 and 21 in the previous two weeks, were 20 last week, of which 15 occurred in Glasgow and 4 in Aberdeen. The 17 deaths from measles showed a further increase upon recent weekly numbers, and included 13 in Edinburgh and 3 in Leith. The 8 fatal cases of scarlet fever also showed an increase upon the numbers in recent weeks, 7 being returned in Glasgow. The deaths attributed to diarrhœa, which had been 9 and 6 in the previous two weeks, rose last week to 12, and were double the number in the corresponding week of last year; 4 occurred in Dundee, 2 in Aberdeen, and 2 in Perth. The deaths referred to "fever" and to diarrhœa were considerably below the average, and the fatal case of small-pox occurred in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 100 and 123 in the previous two weeks, declined again last week to 108, and were 9 below the number returned in the corresponding week of last year. The causes of 73, or 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 27·3 and 24·4 per 1000 in the preceding two weeks, rose again to 27·8 in the week ending May 8th. During the

first five weeks of the current quarter the death-rate in the city averaged 27·5 per 1000; the mean rate during the same period did not exceed 19·0 in London and 18·6 in Edinburgh. The 188 deaths in Dublin last week showed an increase of 23 upon the number in the previous week, and included 14 which were referred to the principal zymotic diseases, against 16, 8, and 13 in the preceding three weeks; 7 resulted from whooping-cough, 4 from diphtheria, 2 from diarrhœa, 1 from "fever" (typhus, enteric, or simple), and not one either from small-pox, measles, or scarlet fever. These 14 deaths were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 2·1 in London and 3·3 in Edinburgh. The fatal cases of whooping-cough, which had been 4 and 5 in the previous two weeks, rose last week to 7. The 4 deaths referred to diphtheria also exceeded the numbers in recent weeks, and raised the number of fatal cases of this disease recorded in the past five weeks to 8, whereas only one was registered in the first quarter of this year. Seven inquest cases and 7 deaths from violence were registered. The deaths both of infants and of elderly persons exceeded the numbers returned in recent weeks. More than a quarter of the deaths were registered in public institutions. The causes of 20, or nearly 11 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

THE Queen has been pleased to give and grant unto Arthur James Wharry, Esq., Surgeon-Major in the Egyptian Army, Her Majesty's Royal licence and permission that he may accept and wear the Insignia of the Fourth Class of the Order of the Medjidieh, which His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan, has been pleased to confer upon him in recognition of his services whilst actually and entirely employed beyond Her Majesty's dominions with the Egyptian Army.

WAR OFFICE.—Army Medical Staff: Deputy Surgeon-General William Henry Muschamp is granted retired pay, with the honorary rank of Surgeon-General; Surgeon-Major William Elgee, half-pay, is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major and Honorary Brigade Surgeon Owen William George, M.D., has been permitted to commute his retired pay.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of December 30th, 1884, Surgeon John Jennings has been placed on the retired list of his rank.

The following appointment has been made:—Surgeon Percy E. Maitland to the *Lion*.

INFANTRY MILITIA.—3rd Battalion, the Sherwood Foresters (Derbyshire Regiment): Surgeon W. A. Walker is granted the honorary rank of Surgeon-Major.

YEOMANRY CAVALRY (Dorset).—Surgeon G. W. Daniell is granted the honorary rank of Surgeon-Major.

ARTILLERY VOLUNTEERS.—1st Dorsetshire: The following officer is transferred from the 1st Hampshire Artillery Volunteer Corps, on its division into two corps—viz., Acting Surgeon P. W. G. Nunn, to be Acting Surgeon.—2nd Sussex: The following officers to be transferred from the 1st Sussex Artillery Volunteer Corps, on its division into two corps—viz., Surgeon R. V. Skinner, to be Surgeon; Acting Surgeon H. Colgate, M.D., and Acting Surgeon H. Habgood, M.D., to be Acting Surgeons.—3rd Lancashire: John Joseph Neville, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—4th Lancashire: John Alexander Mackenzie, Gent., M.B., to be Acting Surgeon; Surgeon William Hoyle resigns his commission.—24th Middlesex: Acting Surgeon H. M. Crookshank resigns his appointment.—2nd Perthshire (the Perthshire Highland): Acting Surgeon John Mackay, M.B., to be Surgeon; Acting Surgeon Peter McCallum resigns his appointment.—2nd Volunteer Battalion, the Princess of Wales's Own (Yorkshire Regiment): Surgeon J. W. Taylor, M.D., is granted the honorary rank of Surgeon-Major.—1st Volunteer Battalion, Princess Charlotte of Wales's (Royal Berkshire Regiment): Surgeon and Honorary Surgeon-Major W. R. H. Barker resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement.—1st Dumfries: Thomas Davidson, Gent., M.B., to be Acting Surgeon.—18th Lancashire (Liverpool Irish): Surgeon J. Finegan, M.D., is granted the honorary rank of Surgeon-Major.

Correspondence.

"Audi alteram partem."

THE SCHOOL BUILDINGS OF WILLIAM HUNTER.

To the Editor of THE LANCET.

SIR,—It is not long since you recorded the demolition of John Hunter's house at Earl's Court. In a few days the whole of the "school buildings" built by William Hunter in 1768 in Great Windmill-street—which you allowed me to describe in THE LANCET of Sept. 27th, 1884—will be removed to make way for the new thoroughfare from Piccadilly to Holborn. Yesterday I was in the Museum, which I first entered as a student some years ago. That room, the theatre, and dissecting-room will soon be only a matter of history. These buildings were used as a school until 1835. Here taught William Hunter, Hewson, Cruickshank, Baillie, Wilson, Brodie, Charles Bell, Herbert Mayo, and Cæsar Hawkins. For three years after the majority of the teachers migrated to St. George's Hospital in 1830, and Mayo to King's College in 1831. Mr. Gregory Smith, who died a few weeks ago, lectured for three years subsequently; he was the head of the school in Little Windmill-street. The dwelling-house, now a foreign café, still remains; it was built at the same time as the schools. Here William Hunter lived and died. He was succeeded by Dr. Baillie, who lived in it until 1799, when he resigned as physician to St. George's Hospital, and went to live in Lower Grosvenor-street, where he died in 1823. Mr. Wilson was the last connected with the school who lived in the house. This neighbourhood had long been a medical centre. Sir John Shadwell, physician to three sovereigns, lived in Great Windmill-street for many years, and died there in 1747. Dr. Willis, who attended the children of James II, when Duke of York, lived in St. Martin's-lane, and died there in 1675. Dr. Denman lived in Queen- (now Denman-) street, and delivered lectures on midwifery in his own house for many years. I should be glad to be informed where John Hunter lived after his return to England in 1763, until he succeeded his brother in Jermyn-street in 1768. I have heard that it was in Golden-square, but I can nowhere find any record of it.

I am, Sir, yours truly,

May, 1886. CHARLES HAWKINS.

"ROTHELN: A POINT OF DIAGNOSIS."

To the Editor of THE LANCET.

SIR,—Having just passed through an attack of the above complaint, perhaps it would be interesting to your readers to have an account of it, especially as it confirms the statement of Dr. Glover in your issue of the 24th ult. as to the implication of some of the cervical glands previously to the appearance of the rash.

On Tuesday, March 23rd, I visited a young patient who had the disease in a mild form, and having seen her only the once, can accurately give the incubation period in my own case—viz., seven days. On the following Thursday (March 25th) I felt a stiffness at the angle of the jaw on both sides, and, having a case of mumps at the time, I laughingly said to a friend that I hoped I was not going to have mumps, little thinking at the time that I was in for another infectious disorder. The stiffness continued, and on Friday, the 26th, I noticed that two or three of the glands on both sides were swollen and tender. This stiffness about the neck and tenderness of the glands continued until the rash made its appearance. On Tuesday evening, March 30th, I felt rather out of sorts, and had considerable aching of the eyes. I passed a fair night, and was able to do my work the next day, though feeling it an exertion. The aching of the eyes increased, so about midday I took a dose of quinine, thinking it was neuralgic, but without relief. At 7 P.M. I had a distinct rigor, and at 7.30 went to bed feeling very unwell, the pain in the eyes being very intense and shooting to the back of the head; I was also very hot and feverish. After passing a very restless night, I was astonished to find myself with a rash on the face, neck, and shoulders, which rapidly spread over the whole surface of the body except the hands and feet; the pain of the eyes was not relieved by the appearance of the rash. Next morning, Friday, April 2nd, the rash was

at its height, the face swollen, conjunctivæ injected, and the throat, soft palate, and gums puffed and sore; the hard palate was also very rough to the tongue and tender, and I feel confident I had the same rash in my mouth and throat as I had externally. On Saturday the rash was fast fading, the aching of the eyes had diminished, and the stiffness of the neck had disappeared; and on the following Monday I got up for a short time, though feeling very shaky; it was on that day that I first noticed desquamation taking place on the face. Nothing remains to be said except that I made a rapid convalescence. I am Sir, yours faithfully,

Mill-hill, N.W., May 5th. W. STROVER.

AMENDMENT OF THE PENAL CLAUSES.

To the Editor of THE LANCET.

SIR,—The following clause in the Medical Amendment Act of 1884 has unfortunately been omitted in the present Act:—

"On and after the said appointed day, if any person who is *not* a registered medical practitioner, and who practises or professes to practise, or publishes his name as practising medicine or surgery for gain, or who receives any payment for practising medicine or surgery—*(a)* uses the designation of or represents himself to be a physician, surgeon, doctor, or apothecary; or *(b)* uses any designation or description denoting that he is qualified by law to practise medicine, surgery, or midwifery,—he shall, on summary conviction, be liable to a penalty not exceeding twenty pounds."

It is too much to expect at present the passing of a law to prevent unqualified persons practising either medicine or surgery; indeed it is doubtful whether such a law will ever be passed; but it is not too much to expect, or indeed to demand, that legally qualified members of the medical profession shall have their titles protected by law. At present a quack can assume any title that he may feel disposed to adopt, provided that he does not pretend to be *registered;* and the burden of disproof, often well-nigh impossible, lies upon those who take action thereon. By the insertion of the above clause this assumption is rendered impossible. It is intended to bring the subject before Sir Lyon Playfair (and other members of Parliament who have expressed themselves favourable to this clause) before the Bill reaches the committee stage, on Monday, the 17th inst., and if necessary petition the House of Lords in favour of the clause. All members of the profession who are in favour of its insertion will greatly assist if they will signify their acquiescence to me *without delay* either by post-card or letter.

I am Sir, yours &c.,

Liverpool, May 11th, 1886. ARTHUR WIGLESWORTH.

*** We entirely sympathise with the purpose of those who have drawn the above clause. Mr. Wiglesworth is chairman of the Liverpool Medical Defence Association, and speaks on the strength of much experience of the weak points in the clauses of the present Act. A Bill with a similar object is already before the House, introduced by Mr. John Morgan Howard, member for the Dulwich division of Camberwell. This Bill further contains a clause meant to suppress dispensaries which purport to be conducted by registered practitioners and are worked chiefly by unqualified assistants. This is a great evil, and needs more stringent legislation than we either have or are likely to get. The clause of Mr. Howard's Bill is perhaps a little too sweeping, but it is in the right direction. Practitioners who approve of the clause to which attention is drawn by Mr. Wiglesworth will do well to signify their approval by post-card to him.—ED. L.

ROYAL COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—The election this year of Fellows to the College of Physicians disappoints those who had hoped for an extension of it on a generous scale to the older Members. Your kindness allowed of attention being drawn to this proposition as early as last October, but possibly then too late to affect the recent election. If so, the sexennium of our present President might at its close be gracefully signalised by liberal selection to the fellowship of the older Members, the length of whose hospital experience, as well as entrance to the College, may measure within a decade of his own, and most of whom were Members before the youngest of the recently elected Fellows had been born. Be it understood, however, no fault is found with the early elections, but it is felt to be desirable as well as equitable, since the College has ceased to be merely metropolitan and become national, that its status of fellowship should be placed within the reach of industry and integrity after a reasonable term of membership. I am, Sir, yours truly,

May 10th, 1886. A MEMBER PRIOR TO 1859.

"AFTER-CARE" OF MENTAL CONVALESCENTS.

To the Editor of THE LANCET.

SIR,—Your previous kindness in calling attention in your columns to the need of "after-care" on behalf of many poor and friendless mental convalescents induces me to trouble you with another brief communication.

In succession to Lord Shaftesbury, who took much interest in the subject of "after-care," and attended several successive anniversaries of the Association, Lord Brabazon has accepted the office of President. Several well-known physicians, specially experienced in the treatment of mental maladies, have evinced personal interest in a project for fostering the convalescence of persons recovering from these disorders. It is intended, when the amount of funds permit the undertaking, to open a "home," both for the reception of a few convalescents and also as a centre of the Society's operations. Lord Shaftesbury expressed an opinion that such a home was necessary. No existing convalescent home (among more than 200) professes to receive persons recovering from general mental derangements. Many homes, by their rules, exclude this class of convalescents from the benefits which they provide for persons convalescing from ordinary maladies. It should be borne in mind that there are more than 60,000 patients (of whom the majority are women) in county asylums and kindred institutions. Many are physically as well as mentally invalided, requiring, on leaving asylums, "after-care" at least equally as much as convalescents from ordinary hospitals. Contributions would be received by Dr. Clay Shaw, hon. treasurer, Banstead, Sutton, Surrey; or by the Union Bank of London, Argyll-place, W. I would gladly reply to any communication.

I am, Sir, yours truly,

H. HAWKINS, Hon. Sec.

Chaplain's House, Colney Hatch, N., May 10th, 1886.

*** We heartily wish this very useful and humane enterprise success.—ED. L.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

SUNDERLAND INFIRMARY.

THE spring meeting of the North of England Branch of the British Medical Association having been held at Roker (a pleasant watering-place in the vicinity of Sunderland) on the 21st ult., the Honorary Medical Staff of the Sunderland Infirmary invited the members to the infirmary, and entertained them to luncheon. Between eighty and ninety members availed themselves of the invitation and inspected the infirmary, which contains accommodation for 150 beds, and was much admired. The new wing has now been opened nearly two years, and was built in accordance with the most advanced ideas of hospital construction, and cost £10,700. The admissions of patients is untrammelled by any subscriber's recommendation, and a small sub-committee sits to see that improper persons are not admitted. This change from ticket to free admission has now been tried for eight years, has worked admirably, and has had the special effect of bringing to the infirmary acute medical cases. There is another feature that might be mentioned in connexion with the Sunderland Infirmary—namely, that for the last fourteen years it has been nursed by the sisters from the Protestant Deaconesses' Training Hospital, Tottenham, and the unanimous feeling of the Committee of Management and of the medical officers is that the nursing and management of the

sisters are highly satisfactory, and their self-denying labours above all praise. Another pleasing feature in connexion with the infirmary, which proves the success of its popular arrangements, is that the working classes contribute liberally.

NEW BATHS AND WASHHOUSES IN NEWCASTLE.

The corporation have erected, just lately, three sets of public baths and washhouses in different districts of the city, and two of these have been completed, and were opened by the mayor the other day. The arrangements are of the most modern and complete description, and the cost of the three establishments will be about £30,500. Each set of buildings contains one large swimming-bath, sixty feet in length and thirty feet in width. These baths are lined with white glazed tiles. Persons will not be permitted to enter the baths until their feet have been washed, and for this purpose a small foot-bath, with hot and cold water, is fitted up.

THE SANITARY CONDITION OF SCHOOL BUILDINGS.

The Corporation of Tynemouth have lately had a searching inspection of the whole of the schools of the borough carried out by the Corporation officials in conjunction with Mr. J. P. Spencer, C.E., of this city, and have published in a detailed report on the whole of the schools in the borough, both private and public, which goes to show that out of forty-five schools dealt with only two are stated to be in a satisfactory condition, the remaining forty-three, including the board schools, being all more or less defective in sanitary arrangements. The report contains in each case practical recommendations for remedying the defects, and the required alterations are in many instances being promptly carried out.

SANITARY DEFECTS IN HOUSES.

A builder in Newcastle having contracted to deliver a house in good sanitary condition to a merchant here, upon the occupation taking place one of the family suffered very severely from blood-poisoning, which led to an examination of the house drains; these were found to be very defective, and in the opinion of medical men clearly accounted for the illness. Legal proceedings were commenced for damages, which the builder found it prudent to arrest by the payment of £500. A few instances of this nature would do much to further a correct estimate of house sanitation in the "building mind."

NEWCASTLE SICK CHILDREN'S HOSPITAL.

The committee appointed by the Corporation have presented a report recommending a lease to be granted to Mr. John Fleming, of this city, of ground belonging to the Corporation in the suburbs, whereupon to erect a new children's hospital, Mr. Fleming having offered to erect the hospital and also to completely furnish it. It is to contain from sixty to eighty beds, and will probably cost not less than £16,000. There is at present a vacancy for a physician to the hospital, and in view of the expansion of the charity, there is likely to be more than usual competition for the post, as it will no doubt afford a good field for work and a certain introduction to practice. So far, the following are pursuing a very active canvass:—Dr. Coley, who is at present assistant physician, and has filled that post for four years; Dr. Limont, who is one of the physicians to the Newcastle Infirmary; and Dr. W. Robertson, of this city.

Newcastle-on-Tyne, May 11th.

EDINBURGH.

(From our own Correspondent.)

ROYAL HOSPITAL FOR SICK CHILDREN.

THE post of extra assistant-physician to this hospital, vacant through the resignation of Dr. Dyce Fraser, has been bestowed upon Dr. R. Mackenzie Johnston.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

At the last meeting of this Society, held on the 5th under the presidency of Dr. Batty Tuke, a large number of interesting specimens and cases were exhibited and some valuable papers read. A fifth was added to a series of cases recorded by Dr. Bruce of the deleterious effects of the inhaled fumes of bisulphide of carbon. In all the patients the same series of symptoms has been observed, the symptoms being chiefly those of alarming disturbances in the cerebrum, as evidenced by profound aberrations in the functional activity of the organs of special sense, with a general loss of trophic activity. The symptoms, though so serious in their aspect, disappear rapidly when the patient is removed from the vitiated atmosphere in which he has been working, and it seems that after his removal there is a steady process of elimination carried, on which relieves the system of the poison, leaving the patient perfectly restored to his lost or aberrant functions in from two to three weeks.—In an interesting paper Dr. Sloane communicated to the Society the results of a series of observations on the relationship which exists between the presence of goitre and the occurrence of pregnancy or menstruation. He drew attention to the frequency of a considerable enlargement of the thyroid tumour taking place in each of these conditions a corresponding diminution in bulk following their cessation; and he is inclined to think that these phenomena are in intimate connexion with some hæmopoiëtic function of the thyroid which becomes specially accentuated during the two conditions in which the enlargement of the gland is noticed. In the discussion which followed considerable doubt was thrown upon Dr. Sloan's view of the probable explanation of the phenomena, but his careful statistics received due credit as an important addition to the literature of the subject.—Dr. Byrom Bramwell read a paper describing a case of Meningeal Cerebral Hæmorrhage, occurring in a hæmophilic subject as the result of a fall. After a prolonged course, during which at first hemiplegia and later optic neuritis were leading symptoms, the patient made a very good recovery, the paralyses having completely disappeared, and the sight being all but fully restored.

Edinburgh, May 11th.

GLASGOW.

(From our own Correspondent.)

UNIVERSITY REFORM.

DURING the last few years a great deal has been said and written about the reform of our system of university teaching, and the agitation with this end in view has been justified by reference to the many evils which are sure to grow up in the absence of a healthy competition in such teaching. Throughout the whole of the controversy it has been assumed, too hastily it seems, that the professors as a body were against any change in the existing system. It has come, therefore, with the shock of a pleasant surprise to find the General Council of Glasgow University adopting, by an overwhelming majority, a scheme of teaching reform which may be pronounced thoroughly radical or even revolutionary, and to find that this scheme is introduced and warmly supported by the professorial party. The plans so ably defended by Prof. Edward Caird at the last meeting of the General Council may be shortly described as having for their object intra-mural expansion as distinguished from unlimited extra-mural teaching. It is suggested that there should be a widening of the curriculum and a greater choice of subjects for the M.A. degree; that various new chairs should be instituted (modern languages, history, political economy, education, &c.); that in the Faculty of Medicine a chair of pathology and a lectureship on mental diseases should be at once founded; that, in addition to the present chairs, junior professorships and lectureships in the subjects already taught in the University should be instituted as required, the lectures of all these professors or lecturers qualifying *pro tanto* for degrees; that while due provision is made for present life interests, all class fees should go into a common fund, and that all the teachers should be paid by fixed salaries. The scheme here sketched is a tolerably close imitation of the German system, the extraordinary professors, professors, and *privat docenten* of Germany being represented by the professors, junior professors, and lecturers. How far it is capable of application to Scottish university life is not yet clear; but meanwhile it has given rise to much discussion and speculation. On the whole, it has been well and even warmly received, the principal malcontents being those engaged in extra-mural teaching with whose work it seems

to some extent to interfere. On the other hand, the professors and assistant professors, and generally all those who have the welfare of the University at heart, have given the plan their warm support. Unfortunately the General Council has no executive power—it can only deliberate and advise; but it seems certain that in any alterations to be made in the government of our universities effect will be given to the expressed wishes and convictions of the members of the Senate and the majority of the University graduates. Further, the government of any one Scottish university is very much bound up with the government of the other three, and thus cannot be readily altered. Again, the monetary difficulty is one which will not be easily overcome; it does not seem very practicable to take the teacher's "fixed salaries" out of a fee fund, which from its very nature is itself anything but a fixed quantity. Visions of private munificence, and even of substantial Government aid, are now floating before the minds of the more enthusiastic advocates of the measure; it is to be hoped that they are not doomed to disappointment.

IRELAND.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual elections for President, Vice-President, Secretary, and Council will shortly take place. There are at present two candidates in the field for the Vice-Presidency, which will then be vacated by Mr. Stokes—viz., Mr. Corley, Lecturer on Surgery in the Carmichael Medical College, and Dr. Frazer, late Examiner in the College of Surgeons; and it is believed that both gentlemen will go to the poll. Among the candidates for Council I may mention the name of Mr. Kendal Franks.

ADDRESS AND PRESENTATION TO DR. JAMES MOORE, LURGAN.

This gentleman was recently presented with a very handsome silver salver, having an appropriate inscription, by his friends from Dungiven, where he formerly practised, as a mark of esteem and affection. The salver was accompanied with an address illuminated on vellum. It must be very gratifying to Dr. Moore that these gifts were subscribed to by members of all classes, creeds, and parties.

DUBLIN ORTHOPÆDIC HOSPITAL.

A grand military and fancy dress ball will be held on the 24th inst. in aid of the funds of this institution. The ball will be under the patronage of the Lord-Lieutenant and the Countess of Aberdeen, the Prince and Princess Edward of Saxe-Weimar, and other distinguished persons. Last year an entertainment of a similar kind took place, and as a result a very considerable sum was obtained for the hospital.

COUNTY DONEGAL INFIRMARY.

Two sections of the new infirmary at Lifford have been completed within the past two years; and the third and last section has now been commenced. This latter is for females, and will contain three wards, with nurses' rooms, operating theatre, bath rooms, &c. The wards will be thoroughly ventilated, and it is intended to line the walls for five feet above the ground with white glazed brick, and the remainder and the ceilings in cement, so as to avoid all risk of infection by absorption, while all can be kept clean by washing with soap and water.

BARRINGTON'S HOSPITAL, LIMERICK.

The managing committee of this institution met last week and made the following appointments:—Visiting Physicians: Drs. Holmes and Graham. Visiting Surgeons: Messrs. Robert Barry, M. O'Connor, John Holmes, and M. J. Nolan. Consulting Physicians: Drs. M. J. Malone, Myles V. Bourke, and George Myles. Consulting Surgeons: Messrs. Thomas Kane, R. R. Gelston, T. J. Gelston, and F. W. Connor. Resident Physician: Dr. George Browning.

BELFAST WORKHOUSE.

The half-yearly report of the Local Government Board inspector of this workhouse is a very satisfactory one, and the management now in operation is giving general satisfaction. During the past half-year the inmates have been healthy, and the town has been free from any epidemic disease. The addition to the lunatic department is now nearly finished, and it is believed that it will answer the purpose for which it was erected. The report speaks highly of the general condition of the workhouse.

Dublin, May 11th.

PARIS.

(From our own Correspondent.)

DEATHS OF DR. HENRI LEGRAND DU SAULLE AND DR. LOUIS-ANTOINE GILLEBERT DHERCOURT.

ON Friday morning I received a notice of the death of Dr. Henri Legrand du Saulle, which occurred as his residence in Paris on Wednesday, the 5th inst., after only two days' illness, from cerebral congestion. He was only fifty-six years of age. The deceased physician was a distinguished member of the profession, and held a high position in Paris, as may be seen by his titles: Physician to the Salpétrière Asylum, Principal Medical Officer of the Prefecture of Police, Expert to the Tribunal Courts, Member and one of the Founders of the Society of Medical Jurisprudence, former President of the Medico-Psychological Society of Paris, and Officer of the Legion of Honour. After having edited the "Gazette des Hôpitaux" for seven years in conjunction with the late Professor Trousseau, he founded with Drs. Gallard and Devergie the Société de Médecine Légale. He was the highest authority in France on mental and nervous affections, on which subjects he published several works. Among them may be cited, "La Folie devant les Tribunaux," "Les Manuel Pratique de Médecine Légale," and "Le Délire des Persécutions." The last-named work was inspired by the events of the second siege of Paris in 1871. It contains an interesting description of the psychological aspect of the Commune, and the author explains in vivid terms how the Parisians, the women particularly, were terror-stricken. With minds thus unhinged, and being also under the influence of drink, the Communists were incited to commit the horrible crimes that are ascribed to them. The funeral of Dr. Legrand du Saulle took place on Saturday last, the service being performed at the Cathedral of Notre Dame, in the presence of a large assembly, where the learned societies to which the deceased belonged, the prefecture of police, and the magistrature were officially represented. After the service the body was conveyed to the Cemetery of Montparnasse, where it was temporarily deposited for further removal to his native town.

Another well-known physician, Dr. Louis-Antoine Gillebert Dhercourt, has just passed away. He died at Enghien, near Paris, where he had settled in practice during the whole of his professional career, and where he will be very much missed by the invalids who resort to that watering-station during the summer. The deceased was seventy-eight years of age; he was President of the Medical Society of Paris.

M. PASTEUR.

In completion of his report, submitted about a month ago to the Academy of Medicine, M. Pasteur read another at the meeting of last week, in which he expressed himself as follows: "On April 12th last the number of persons inoculated for hydrophobia was 726; at the present moment (April 4th) it is 950. Since the time that that report was presented I have had a confirmation of what I then stated—viz., that the mortality caused by the bite of rabid wolves was very considerable. Very frequently this mortality is 100 per cent., and the duration of the incubation is always very short, being sometimes only thirteen or fifteen days. Very frequently also this duration does not exceed eighteen to twenty days, the bite of the dog being rarely of such short duration. Six deaths have occurred among those who have been inoculated, without including the little girl Pelletier, who died at the commencement of these inoculations. The six cases were Russians, five of whom were men bitten by wolves, and the other a woman bitten by a mad dog, all of whom died of hydrophobia, and in whom also the wounds were of a very grave nature. These statistics present a great deception to hostile persons—such, for instance, as the anti-vaccinators. This is my profound conviction, and I believe that there can be no possible doubt regarding the method, as the persons adverse to it cannot contest the results which I have indicated, any more than the experiments which repose on the *ensemble* of these results."

Paris, May 11th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council held on Thursday last, Mr. Bruce Clarke attended and received the Jacksonian Prize.

The President, Vice-Presidents, and Mr. Marshall, representative of the College in the General Medical Council, were appointed to take any action which they may deem requisite in regard to the Medical Acts Amendment Bill.

The report of the Council of the Royal College of Physicians with reference to the title of Doctor, which has been laid before that College, was brought before the Council, and referred to the consideration of the Committee already appointed to report upon.

The resignation of Mr. Henry Moon, Examiner in Dental Surgery, was received with regret.

Mr. Marshall was reappointed representative of the College in the General Medical Council for five years from the 9th of June next.

Information was received from the Foreign Office of an International Congress on Hydrology and Climatology to be held in Biarritz in October next.

A letter was read from the Chancellor of the University of Adelaide, requesting recognition of the course of lectures of that University for the First and Second Examinations. This was referred to the Committee of Management.

Obituary.

TIMOTHY LEWIS, M.B., OF NETLEY.

IT is with much regret we announce the death of the above-named gentleman, which took place on the 7th inst., at his residence, Bywood, Woolston, after a brief illness, extending over a week only. The late Surgeon-Major Lewis was assistant professor of pathology in the Army Medical School, to which institution and to the medical staff of the army his death will be a great loss. Dr. Lewis's reputation as a scientist was European; as a microscopist he was *facile princeps*. Less than a fortnight ago the Council of the Royal Society included his name in the list of those recommended for election as Fellows in June next in recognition of his original investigations and contributions to science. When he passed through the Army Medical School as a probationer for the Medical Department of the Army, the professors recognised his aptitude for scientific investigation, and, along with Dr. David Cunningham, a probationer from H.M.'s Indian Medical Service, brought his name under the notice of the Secretary of State for War. The professors recommended that both the gentlemen named should be sent to Germany for a few months' training under some of the most accomplished pathological *savants* of that country. To this the Secretaries of State for War and India consented, and by the recommendation of the professors both gentlemen were sent to India, chiefly with a view to carry out investigations on the cause of cholera. This cause is yet one of Nature's secrets, which has evaded the researches of the ablest men who have sharply interrogated her; but while they failed to discover what was the main object of their search, like the brothers in the fable who dug in the garden for hidden treasure which was not there, their researches and labours were fruitful in other discoveries, with which the names of Lewis and Cunningham will, in the annals of science, be imperishably associated. The deceased gentleman was an occasional and highly valued contributor to our columns. It is needless to add that his death has caused profound grief in the great establishment to which he belonged, and of which he was so great an ornament. He had only just reached his forty-fifth year of age, and has left a widow and two children to mourn their loss.

DR. JOHN D. HAYWARD, of Liverpool, has, we understand, obtained a prize offered some two years ago by Dr. Prater for essays on the subject of Hydrophobia.

MEDICAL NOTES IN PARLIAMENT.

Medical Officers at Suakim.

IN the House of Commons on the 7th inst., Mr. Herbert Gladstone, in reply to a question by Mr. M. Henry, stated that three medical officers serving at Suakim had died, and that ten had been invalided. The medical officers of the British army were being removed from Suakim, as the British garrison was withdrawn.

The Rating of Charities.

On the 11th inst. Sir Julian Goldsmid brought in a Bill to exempt charities and hospitals from local rates.

Small-pox in Prisons.

In reply to Mr. Stanley Leighton, Mr. Childers stated that it was perfectly true that two prisoners suffering from small-pox had been removed from Shrewsbury Gaol to the Atcham Workhouse, a distance of five miles. He had no reason to doubt that the removal was, under the circumstances, expedient, and that all proper care was taken in the case. The prison is at present undergoing partial reconstruction, and there is no available space for the insulation of a case of this nature; moreover, the workhouse infirmary at Atcham is used for infectious cases, including small-pox cases. In reply to a further question, Mr. Childers said that it would partly depend on the condition of the prison whether, if a prisoner was affected with disease of this kind, he should be removed. In the present case it would clearly have been wrong to keep him in prison.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having passed the required examination, were admitted Members of the College on the 6th inst.:—

Birch, Edward Alfred, M.D. Brussels, Exmouth.
Dalton, Norman, M.D. Lond., Bentinck-street, Manchester-square.
Gerard, John, M.B. Aberd., Keppel-street, Russell-square.
Harris, Thomas, M.D. Lond., Mosley-street, Manchester.
Jones, Henry Lewis, M.B. Camb., Barnard's-inn, Holborn.
Lyon, Thomas Glover, M.D. Camb., King-street, Cheapside.
Neale, John Headley, M.B. Edin., Leicester.
Pearce, Walter, M.B. Lond., St. Mary's Hospital.
Pope, Frank Montague, M.B. Camb., Leicester.
Rutherfoord, Henry Trotter, M.B. Camb., Bedford-gardens, Kensington.

The following gentlemen were admitted Licentiates of the College on the 6th inst.:—

Baker, Walter Robert, Pine Villa, Quex-road, Kilburn.
Barrett, Robert Hasby, Elms-road, Dulwich.
Barrett, Sidney Edward, London House, Stepney.
Berrill, Alfred, Olton, Birmingham.
Bidwell, Lawrence, Lee-terrace, Blackheath.
Bonnefin, Fernand Henry, St. Paul's-road, Camden-square.
Buckell, Edward, Romsey.
Chisholm, Murdoch, Paris-street, Lambeth.
Clark, Francis William, Fairfield-road, East Croydon.
Clay, William Rudolph, Westwick-gardens, Hammersmith.
Coker, Owen Cole, Uxbridge-road.
Colquhoun, William Brooks, Evering-road, Upper Clapton.
Copeman, Sydney Arthur Monckton, York-road, Lambeth.
Daly, Stephen Joseph, Monastervin, Ireland.
Davidson, Harold, Claremont-road, Forest-gate.
Davis, George William, College of Medicine, Newcastle-on-Tyne.
Davis, Weston Peel, Gloster-terrace, Bayswater.
Dickinson, Charles, Sloane-street.
Dobson, Leonard Chas. Talbot, Holmesdale, Grange-park, Ealing.
Ellis, William McDonagh, High-road, Lee.
Evans, Charles Hotham, Percy Lodge, Winchmore-hill.
Gordon, Bryce, Sundorne-road, Charlton, Kent.
Gore, Alfred Joseph, Mildmay-road, Highbury.
Grenfell, Henry Osborne, Charing-cross Hospital.
Harrison, Sidney Hope, Victoria-road, Tamworth.
Hare, Edward Christian, Lansdowne-place West, Bath.
Hebb, Frederick Theodore, George-street, Hanover-square.
Heffernan, William Hilton, Doddington-grove, Kennington-park.
Herbert, Herbert, Reginald-terrace, Leeds.
Holyoake, Hubert, Droitwich.
Ives, William Robert Yeates, Bevois-hill, Southampton.
Jackson, William Edward Gilson, Long-lane, Bermondsey.
James, David Phillip, Osborne-terrace, Clapham.
Jollye, Francis William, Warminster.
Joly, Joseph Eugene Numa, University Hospital.
Jones, George Burdett Mander, Sydney, New South Wales.
Julian, Oliver Richard Arthur, Dispensary, Stoke Newington.
Keightley, Archibald, Chichester Villas, Notting-hill.
Kingsford, Edward Claude, Guy's Hospital.
Langton, Charles Baring Tyndal, Medora-road, Brixton.
Lawson, Bernard Sloane, Harley-street.
Llewellyn, James Davies, Gorphwysfa, Bargoed, Cardiff.
McDowell, Samuel Edgar Creighton, Frederick-street, Gray's-inn-road.

Mander, Percy Robert, Bridge-road, Hammersmith.
Melhuish, John, Crossfield-road, Belsize-park.
Morgan, James Campbell, St. John's-park, Blackheath.
Morris, Colin Dwight, Philpot-street, Mile-end.
Noyes, Alexander Wellesley Finch, Beaufort-street, Chelsea.
Oliver, Francis George, Upper Mall, Hammersmith.
Pain, Francis, Thurlow-park-road, Dulwich.
Paine, William Henry, High-street, Lewisham.
Paul, George William Frederick, Ladbroke-grove-road.
Pearson, George Kenneth, Elgin-road, St. Peter's-park.
Pearson, Heslop Laird, Bedford-road, Rock Ferry, Birkenhead.
Pollard, Charles, Guy's Hospital.
Reddall, Osborne Henry, Bellenden-road.
Riddell, Andrew Wilson, Warwick-road, Redland, Bristol.
Ritson, Robert, Halsey-street, Chelsea.
Roome, Stanley Molesworth, Northesk, Dunkettle, Ireland.
Shopoff, Pano Ivan, Upper Brook-street, Grosvenor-square.
Simmons, Herbert Charles, Carleton-road, Tufnell-park.
Stubbs, Percy Bedford Travers, Ockenden-road.
Tabor, Charles James, Reading.
Tait, James Sinclair, Paris-street, Lambeth.
Tapson, Joseph Alfred, High-street, Clapham.
Travers, Ernest Aston Otho, Sutton, Surrey.
Tyndall, Francis, Ash-grove, Seaforth, Liverpool.
Valhance, Ernest, Deanery, Stratford.
Van Buren, Ernest Cecil Haward, Kensington Infirmary, Marloes-road.
Warde, Arthur Waldemar Brougham, St. Bartholomew's Hospital.
Ware, George Stephen, Middlesex Hospital.
Warner, Frederic Ashton, Eaton-terrace, Pimlico.
Webster, Percy Samuel, Fairbridge-road, Upper Holloway.
Williams, George Rowland, Ferme-park-road, Stroud-green.
Williams, James Edward, Richmond-crescent, Barnsbury.
Wood, Edward, Windmill-hill, Enfield.
Wright, Hiram Augustus, Guelph, Canada.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 6th inst.:—

Bowden, Walter, Hilldrop-crescent.
Damian, Francis George Claxton, Trinidad, West Indies.
Edwards, Percy, Hawarden, Dartmouth.
Hardy, Albert Edward, Somerville House, Buttershaw, Bradford.
Nicholson, Edgar, Clarendon-road, Notting-hill.
Stone, John William, Richmond, Yorkshire.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—In the list published last week of gentlemen who passed for the membership of the Royal College of Surgeons of England, the letters "L.R.C.P.L." should have followed the name "William Henry Paine," not "L.S.A."

THE Hospital Sunday collection at Rochester was held on the 9th inst.

A CENTRE of the St. John Ambulance Association has been opened at Jerusalem.

ON the 5th inst. the new buildings of the Royal College of Veterinary Surgeons were formally opened by Mr. Roalfe Cox.

THE 9th of July next has been chosen as the opening day of the grand bazaar in aid of the funds of University College Hospital, which is to be held in the grounds of the College.

THE eighth annual report of the Southsea Infant Nursery has just been published, and contains a most satisfactory account of the work done by the institution during the past year.

THE President of the Royal College of Surgeons, Mr. W. S. Savory, has just issued cards of invitation to his conversazione, to be held in the College on Wednesday evening, June 9th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL. — The Princess of Wales has consented to open the new wing of this hospital, which is now approaching completion. The ceremony will take place at a date to be fixed by her Royal Highness subsequent to June 1st next.

THE keeper of a registered lodging-house has recently been fined 20*s.*, and 6*d.* each day for forty-nine days, at the Southwark Police-court, for not complying with the Public Health Act as to the amount of free cubic air space required for each of his lodgers.

PRESENTATION.—The post-graduate course of demonstrations in Ophthalmology, conducted by Dr. Hill Griffith at the Manchester Royal Eye Hospital, has just been concluded. The practitioners who attended the course have presented Dr. Griffith with a purse containing twenty-five sovereigns, as a token of their appreciation of the great ability and courtesy with which he has carried on the class.

THE Tottenham District Board of Health and the Metropolitan Board of Works having withdrawn their opposition, the Bill for the Purification of the River Lea has passed a Select Committee of the House of Commons practically unopposed.

THE magistrates at the Edmonton Petty Sessions have granted a summons, under the Public Health Act, against the Tottenham Local Board of Health, for allowing a large quantity of sewage to be placed upon the marshes at Park, in the Tottenham district, to the danger of the health of the public.

METROPOLITAN FREE HOSPITAL, KINGSLAND-ROAD.—At the anniversary festival of this institution on the 12th inst., it was reported that the total income for the past year amounted, in consequence of the commercial depression, to only £3600, whilst the ordinary expenditure exceeded £4000. The contributions announced during the evening by the secretary amounted to £2177.

THE Vienna Medical Widow and Orphan Society has issued a most satisfactory report concerning its present condition. The funds now in its possession amount to 2,500,000 gulden. The members number 354, and the widows and orphans 136, whose pensions amount in the aggregate to 89,000 gulden. The Society's funds being in so flourishing a condition, a resolution has been passed to augment the pensions now being paid.

THE SOUTHWARK AND VAUXHALL WATER BILL.—The clause in this Bill concerning the compulsory purchase of the dust-sifting yard near the company's filter-beds at Battersea has been struck out, and in its place an agreement with the London and Brighton Railway Company, the owners of the dust-yard, is scheduled to the Bill, in which an undertaking is given to discontinue its use as a dust-sifting yard upon certain terms contained in the agreement.

ABERDEEN ROYAL INFIRMARY.—At a meeting of the Committee of Management of this institution, held on the 4th inst., for the purpose of considering the question of hospital extension, it was resolved that the sketches illustrating the Lord Provost's plan be lithographed, and, with an explanatory memorandum, circulated among the committee and medical staff. A sub-committee was elected to give effect to this resolution.

ROYAL HOSPITAL FOR INCURABLES.—The annual dinner in aid of the funds of this institution was held on the 7th inst., under the presidency of the Duke of Portland, who, in proposing the toast of the evening, made an earnest appeal for liberal subscriptions, and pointed out how essential it was that the charity should receive undiminished support. During the evening the secretary announced a list of subscriptions amounting to £3725.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY. The annual meeting of the subscribers to this hospital was held on the 1st inst., when Dr. Robertson, who presided, delivered an address, in which he briefly reviewed the work done during the past year. The number of patients admitted was 2422, of whom 2144 were sent away as improved. It was unanimously resolved that a meeting of subscribers be called to take into consideration the advisability of establishing a Hospital Saturday during the summer in aid of the institution.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARENDT, FRANK H., M.R.C.S., L.R.C.P.Lond., has been appointed House-Physician to the Royal Infirmary, Liverpool.

CHAPMAN, HERBERT F., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer to the Workhouse of the Richmond Union.

COCK, M. F., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Turvey District of the Bedford Union.

EVANS, WILLIAM, M.R.C.S., L.K.Q.C.P.I., has been appointed House-Surgeon to the Royal Infirmary, Liverpool.

FINDLATER, ALEXANDER, M.B.Dub., has been appointed Medical Officer for the Second District of the Aylsham Union, and for the Aldborough District of the Erpingham Union.

FRASER, JAS. THOMSON, M.B., C.M., has been appointed Honorary Physician to the Hulme Dispensary, vice G. J. Haslam, M.D., M.R.C.S., resigned.

GAILEY, JOHN A., M.D.Ed., L.R.C.P.Ed., has been appointed Medical Officer for the Leekfrith District of the Leek Union.

GEMMELL, JOHN R., M.B., C.M.Edin. (late House-Physician), has been appointed House-Surgeon to the Royal Infirmary, Liverpool.

JOHNSTON, R. M'KENZIE, M.D., F.R.C.S., has been appointed an Extra Physician to the Royal Edinburgh Hospital for Sick Children.

KNOTT, CHARLES, M.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Workhouse of the Portsea Island Union.

LISTER, CHARLES R., L.K.Q.C.P.I., has been appointed House-Surgeon to the Royal Infirmary, Liverpool.

LOE, J. S., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Second District of the Leeds Union.

LUCAS, S. A., L.R.C.S.Ed., L.R.C.P.Ed., has been appointed Honorary Medical Officer for the No. 1 District of the Liverpool Ladies' Charity and Lying-in Hospital.

OSWALD, ROBERT J. W., M.R.C.S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Seventh District of the Lambeth Parish, vice Lionel Druitt, M.D., resigned.

PEDLEY, R. DENISON, L.D.S., M.R.C.S., has been appointed Dental Surgeon to the Evelina Hospital for Sick Children, Southwark bridge-road.

PIESSE, CHARLES HENRY, M.R.C.S., L.S.A.Lond., F.I.C., F.C.S., &c., Public Analyst for the Strand District, has been appointed Public Analyst for Fulham.

PIZEY, G. F. P., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Ninth District of the Bedminster Union.

SHEPHERD, ROBERT J., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Radnorshire District of the Hay Union.

THOMAS, W. THELWALL, M.R.C.S., L.R.C.P.Ed., has been appointed House-Physician to the Royal Infirmary, Liverpool.

Births, Marriages, and Deaths.

BIRTHS.

BRADSHAW.—On the 11th inst., at Sulgrave, Banbury, the wife of J. C. Bradshaw, L.R.C.P., &c., of a daughter.

HART.—On the 10th inst., at 4, Wemyss-place, Edinburgh, the wife of D. Berry Hart, M.D., of a daughter.

LANGFORD.—On the 7th inst., at Park House, East Finchley, the wife of Phinehas Pitts Langford, M.D., of a son.

MEARS.—On the 7th inst., at 11, Northumberland-square, North Shields, the wife of Frederick Charles Mears, M.B., of a daughter.

RICHARDSON.—On the 7th inst., at Lake House, Frampton-on-Severn, Gloucestershire, the wife of Richard T. Richardson, M.R.C.S., L.S.A.Lond., of a daughter.

ROOME.—On the 6th inst., at Fluelen House, Guildford, Surrey, the wife of Henry Abercrombie Roome, M.B., of a daughter.

SANDERS.—On the 5th inst., at Church-street, West Ham, the wife of Charles Sanders, M.B., M.R.C.S., of a daughter.

SANGSTER.—On the 7th inst., at 153, Lambeth-road, S.E., the wife of Charles Sangster, of a son.

VOGAN.—On the 5th inst., at St. Matthew's, Ipswich, the wife of Jas. Norman Vogan, F.R.C.S., of a son.

MARRIAGES.

MACKERN—GIBSON.—On the 5th inst., at St. John's Anglican Church, Buenos Ayres, George Mackern, M.D., to Maria Spence, elder daughter of Thomas Gibson, of Eglinton-crescent, Edinburgh.

STEWART—BAILEY.—On the 28th ult., at the Parish Church, Marylebone, by the Rev. Page Roberts, M.A., Incumbent of St. Peter's, Vere-street, William R. H. Stewart, of 41, Devonshire-street, W., elder son of William E. Stewart, of 16, Harley-street, W., to Bessie Bilford, elder daughter of George H. Bailey, of 9, Cavendish-place, W.

DEATHS.

BOYCOTT.—On the 12th inst., at Montagu-square, Thos. Boycott, M.D., F.L.S. (formerly of the Mint, Calcutta), aged 70.

BREMNER.—At Strand-terrace, Walmer (after a few hours' illness), John Traill Urquhart Bremner, Inspector-General, R.N., aged 64.

LEWIS.—On the 7th inst., at Bywood, Woolston, T. R. Lewis, M.B. (F.R.S. elect.), Surgeon-Major, Army Medical Staff, aged 44 years.

LYONS.—On the 7th inst., Isidore I. Lyons, L.R.C.P., M.R.C.S., L.S.A.Lond., L.D.S., late Surgeon-Dentist, St. Bartholomew's Hospital, and of Queen Anne-street, Cavendish-square, W., aged 44 years.

OWEN.—On the 7th inst., at Belvedere-road, Upper Norwood, Harvey Kimpton Owen, M.D., F.R.C.S., L.S.A.Lond., in his 71st year.

PARRY.—On the 10th inst., at Lancaster-terrace, Regent's-park, Richard Parry, M.D., aged 79.

SEALY.—On March 9th, at Nelson, New Zealand, William Byers Sealy, M.D. (formerly of Swindon, Wilts), eldest son of the late Lieut.-General B. W. D. Sealy, of Clove Dale, near Bristol, aged 63.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, May 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

SOCIETY OF ARTS.—8 P.M. Dr. B. W. Richardson: Animal Mechanics (Castor Lecture).

Tuesday, May 18.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Circulation.

PATHOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Eve: Adenoma and Adenosarcoma of Ovary.—Mr. Hutchinson: Adenoma of Palate.—Mr. Hutchinson, jun.: Neuroma of Parotid.—Dr. Acland and Mr. Ballance: (1) Noma; (2) Actinomycosis in Man.—Dr. Payne: Erythrasma.—Dr. Silcock: (1) Gangrene of Lung; (2) (for Dr. H. Jones: On the Vessels in Meningitis.—Dr. West: Mediastinal Tumours.—Dr. Turner: Miliary Tubercle in Pulmonary Artery.—Dr. Sharkey: Perforation of Vermiform Appendix.—Dr. Sainsbury: Tubercular Mass in Suprarenal.—Dr. Hale White: Case of Peripheral Neuritis, Myelitis, and Pachymeningitis.—Mr. Bilton Pollard: (1) Duct Papilloma of Breast; (2) (for Mr. C. Heath): Secondary Epithelioma of Lower Jaw.—Mr. Battle: (1) Osteochondrosarcoma of Breast; (2) Osteochondroma of Thigh.—Dr. Hadden (for Mr. Paul): Rupture of Aorta. Card Specimens will be shown by Drs. Kidd, Silcock, Sharkey, and Hadden, and Messrs. Battle, E. H. Fenwick, Churchill, and E. Crookshank.

SOCIETY OF ARTS.—8 P.M. Mr. Ernest Hart: Japanese Art Work.

Wednesday, May 19.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

SOCIETY OF ARTS.—8 P.M. Prof. Leonard Waldo: Watchmaking by Machinery.

Thursday, May 20.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: The Alkaloids.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Dr. R. Downes: Treatment of Leprosy and Sciatica by Nerve-stretching.—Dr. R. Maguire: On the Albumens of the Urine.

Friday, May 21.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Mr. William Bassie: The Waters derived from the Bagshot Beds considered as Drinking Supplies.

SOCIETY OF ARTS.—8 P.M. Capt. Richard Carnac Temple: Everyday Life of Indian Women.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Ballance will give a Demonstration in Bacteriology, to include the Cultivation of various Micro-organisms in Nutrient Media, together with Microscopical Preparations of the same.

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Sir John Lubbock: The Forms of Seedlings, the causes to which they are due.

Saturday, May 22.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Ernst Pauer: How to Form a Judgment on Musical Works.

SOCIETY OF ARTS.—3 P.M. Prof. George Forbes: Electricity

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 13th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 7	30·21	W.	62	52	106	77	52	...	Hazy
,, 8	30·07	W.	61	57	85	70	57	...	Overcast
,, 9	29·93	E.	58	53	99	70	51	...	Cloudy
,, 10	29·85	E.	55	51	104	68	48	...	Cloudy
,, 11	29·85	S.E.	50	49	...	51	49	·03	Overcast
,, 12	29·69	S.E.	49	48	...	56	46	·19	Overcast
,, 13	29·10	N.E.	51	51	...	52	48	1·01	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

DAMP TOBACCO.

SOME startling statements with reference to the adulteration of tobacco by excessive moisture were made by Mr. Macfarlane in the House of Commons last week. Of some samples of bird's-eye tobacco which he had caused to be examined, No. 1 sample, at 5*s.* per lb., contained from 5 to 8 per cent. of water; No. 2, at 4*s.* 8*d.*, from 10 to 14 per cent.; No. 3, at 3*s.* 10*d.*, from 21 to 26 per cent.; No. 4, at 3*s.* 4*d.*, from 40 to 45 per cent.; No. 5, at 3*s.* 2*d.*, from 45 to 50 per cent.; and No. 6, at 3*s.* 1*d.* per lb., contained from 55 to 60 per cent. of water. These three lowest qualities represent three-fifths of the whole tobacco consumed in this country, and almost exclusively that which is smoked by the working classes.

Dr. Alex. Hill will find, on reference to our number of the 1st inst., p. 851, that the fact has already been announced in our columns.

"BONE-SETTERS AND THE PROFESSION."

To the Editor of THE LANCET.

SIR,—In your last issue, p. 903, appeared a short note bearing the above heading. Your opinion there expressed gratifies me, inasmuch as it upholds the course I found it necessary to take quite recently with a patient. The latter, a young girl, has suffered from strumous disease of the knee-joint for about eighteen months. As it was not improving so quickly as her parents would have liked, they, without my knowledge at the time, took her to a bone-setter in the neighbourhood, who told them the usual story, and said he could cure her. The mother, however, did not think her daughter could bear the pain of having the joint "put in," and asked me to go with them to the setter of bones in order to administer chloroform. This I at once firmly refused to do, and gained for myself the name of being very unkind, and at the same time lost a patient. I, however, felt convinced that I had acted rightly, and your opinion strengthens me in my belief. I am, Sir, yours faithfully,

May 8th, 1886. X.

THE MORPHIA HABIT.

To the Editor of THE LANCET.

SIR,—I should advise your correspondent, "Young Practitioner," to urge his lady patient addicted to morphia injecting to apply for admission into a suitable institution. From my experience I can affirm it is the best course and the most reliable. Many such cases have been successfully treated and cured.

I am, Sir, yours truly,

May 10th, 1886. J. ST. THOS. CLARKE, M.B.Lond.

THE COST OF THE SMALL-POX.

THE following extract from a recent speech of the President of the Grand Trunk of Canada Railway is interesting:—

"Of the £83,000 which we lost in the last half-year of 1885, £50,000 may be computed to be owing to the outbreak of small-pox at Montreal, and £8000 to the loss of emigrant traffic. The disease commenced in Montreal in February, 1885. The conductor of a Pullman car arrived at Montreal with the disease upon him, and as there was no special hospital to which he could be taken, he was conveyed to a regular general hospital, and very kindly treated. From that one case the disease spread with most alarming rapidity. The municipal authorities had not the necessary experience to enable them, in the first instance, to deal with such an outbreak of contagious disease; but afterwards it was vigorously attacked, and ultimately stamped out. But if the Grand Trunk Railway Company have lost £50,000 owing to the small-pox, the mercantile community of Montreal has been a far heavier loser. Goods sent from Montreal were actually returned as being infected goods, and at one time no one would buy anything from the city. The commerce of the whole district was paralysed, and Montreal was boycotted. Even the province of Quebec itself was isolated. The province of Ontario established a system of inspection, and there was a medical inspection also established at various points in the United States. No one travelled by our trains who could help it, the through traffic by way of Canada was driven into United States channels, the Grand Trunk trains were all shunned as being infected, and wherever passengers were discovered care was taken immediately and promptly to vaccinate them and to fumigate them thoroughly. As yet we have hardly recovered from that state of things. It followed us up to January, 1886, when the Montreal carnival could not be held in consequence, and from the carnival in past years we have always derived a good deal of traffic. It was useless to attempt to hold a carnival."

Dr. Ashby.—Probably next week.

"AN UNUSUAL CASE OF CONGENITAL MALFORMATION."

To the Editor of THE LANCET.

SIR,—In your issue of April 10th, p. 732, Mr. Salter describes a case of unusual congenital malformation, but where a post-mortem examination was not allowed. On Sunday, March 21st, I met with a case presenting somewhat similar symptoms, and the result of the post-mortem examination was rather interesting. The child (a female) was born about 2 A.M., and looked quite healthy, except that the abdomen was unusually distended, and on my visit in the evening the nurse drew my attention to the large size of the abdomen and stated that the child had been very sick. I requested her to give it a teaspoonful of castor oil, and when I called again on the Tuesday I found that the oil had not operated and that the sickness was getting much worse, the vomit becoming black and offensive. I tried an injection, but it succeeded in bringing away only a few very small lumps of fæces. The vomiting became more and more severe and the child died on Thursday morning, having lived a little over four days. At the post-mortem examination the stomach was found normal and the small intestine for about three feet was also normal, but here it ended in a blind extremity, which was greatly distended. Then, quite separate from all this, and not attached to it in any way, were coils of very small intestine several feet in length and not measuring more than a sixth or an eighth of an inch in diameter. This passed on into the right iliac fossa, and there forming the ileo-cæcal valve it continued in the course of the large intestine on to the rectum, its diameter in any part of its course not measuring more than a sixth of an inch. Doubtless the explanation of the non-development of this part of the intestine is simple, but the breach of continuity of the small intestine just about three feet from the stomach is not so easy of elucidation. Perhaps some of your readers may offer an explanation.

I am, Sir, yours faithfully,

Southwick-street, W., April 20th, 1886. OWEN PRITCHARD, M.D.

THE LEPER HOSPITAL AT BERGEN.

IN the *Sunday Magazine* for the present month is a description, by Mrs. Chas. Garnett, of the Asylum for Lepers at Bergen, the largest of the three institutions of the kind in Norway. Together they are capable of accommodating 800 patients, the number of inmates in 1880 being 617. The poor sufferers seem to be well cared for, and their lives made as pleasant by cheerful surroundings as their pitiable condition will admit of. Some of the rooms visited by the writer, however, were rendered intolerable by the want of ventilation, to which the lepers appear to have a deadly antipathy. In vain do the doctors in the morning throw open the windows; they are again closed as soon as opportunity offers. Most of the patients find a measure of relief from the monotony of their dreary existence by engaging in some kind of handicraft in the large workrooms set apart for the purpose. Segregation being recognised as the only effectual means of lessening the prevalence of leprosy, and of finally annihilating it, the Norwegian Government, we are told, is seeking to obtain powers to make the isolation of the sick compulsory, either in the national asylums or in their own homes.

Dr. Gilbertson will find the announcement on page 901 of our last issue.

THE CONSUMPTION OF TEA.

ACCORDING to some statistics recently published by an Indian contemporary, it appears that the people of Great Britain are considerably behind other nations in the average consumption of tea per head of population. The Australians come first with 7·66 lb. per head; the New Zealanders next with 7·23 lb. per head; while the people of Great Britain, though appearing third in the list, consume only 4·90 lb. each. Newfoundland and Canada come next, while in the United States the consumption is only 1·30 lb. per head; and in Russia, which is always regarded as a great tea-drinking country, the consumption is only 0·6 lb. per head. Belgium, Sweden, Austria-Hungary, and Spain consume less than the other European nations; but there is not one nation on the Continent, with the exception of Holland, in which the annual consumption exceeds 1 lb. per head.

COCAINE AND SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—The subject of sea-sickness having been again opened by your correspondent, "Surgeon R.N.," I venture to send you the following two cases and accompanying observations without the usual apology.

My own observations have led me to distinguish two distinct forms of *mal de mer*, and a third intermediate or hybrid one. A certain proportion of the cases of sea-sickness will be noticed to occur almost immediately upon the vessel leaving port, and the number of these cases and the severity of their symptoms are always proportionate to the extent of the rocking. In these patients all purely "bilious" symptoms are conspicuous by their absence—that is to say, the skin and conjunctivæ are not jaundiced, there is no diarrhœa, the urine is not abnormally coloured, and the ejecta do not contain bile. If the retching is very severe, some bile may be regurgitated through the pylorus and appear in the vomit, but in small quantities only. I have always looked upon these cases as of purely nervous origin, possibly, as your correspondent suggests, due to jarring of the semicircular canals. I should, however, before definitely adopting this view, be glad to hear his explanation of the fact to which my attention was long ago called—namely, the great relief experienced in some cases by the application of firm support to the hypogastrium. I can recall a severe case which was much benefited by the tight application of the usual obstetric binder. Acting upon the theory that this form of vomiting is of the nature of a nerve reflex, I have been in the habit of prescribing anodynes. Chloral has been distinctly beneficial; but, on account of its taste, it is superseded, in my estimation, by cocaine. The following two cases are fairly illustrative of its usual action in my hands. They occurred on one of the Orient steamers in September last. Soon after leaving, the weather became very severe, the hatches were battened down, and only a few male passengers were allowed on deck by special permission.

CASE 1.—Miss B—— commenced to vomit two hours after leaving the Thames, and was very sick for an hour, when (at noon) she was given one-third of a grain of hydrochlorate of cocaine in a teaspoonful of water and orange syrup. She felt relieved almost immediately, and did not vomit again till 4 P.M., when a second dose was administered. She now became drowsy, and slept till 10 P.M., when she awoke, and was sick again. She then asked for another dose (the third). She fell asleep soon after taking it, and slept soundly all night. Next day she continued in a drowsy state. In the evening she sat down to dinner, eating a fair meal apparently. The weather was slightly less severe, but very rough, and though it continued so for the rest of the voyage she had no return of sickness.

CASE 2.—Mr. B—— had been sick all the first day, and at 6.30 next morning was given one-third of a grain of hydrochlorate of cocaine, which he immediately rejected. At 9 A.M. a second dose was given. He retained this, and slept till 1 P.M., and was very drowsy till 4 P.M., but not sick. He got up to dinner and partook of soup and fish and came off deck afterwards. The weather was still very rough, and continued so, but he had no return of sickness.

On future occasions I shall give a quarter of a grain, one-third seemingly being unnecessarily large. Another class of cases I have noticed occur usually at the expiration of twenty-four hours or more after leaving port, and they do not seem to be much affected by the rolling of the vessel. These patients have a typically "bilious" appearance. The skin and conjunctivæ are yellow, the tongue is furred, there is usually some bilious diarrhœa, the urine is high coloured, and the vomit always contains bile. One sees usually more of these patients, for they have not the tendency to lie down which the others have, but seem, on the contrary, restless. Their condition seems to be due to the stimulating effect of the sea air upon the secretion of bile, the effect no doubt being heightened by the sudden cessation of accustomed exercise, and, perhaps, a sharpened appetite and consequent over-eating. The same symptoms, in a less degree, are observable in persons newly arrived at the sea-side from some inland locality, and may more properly be designated "sea biliousness." Small frequent doses of an effervescing saline are usually sufficient to relieve them of their distress. The most difficult to treat are those whose symptoms give one the impression of partaking of the above-described two conditions combined. A man who feels a little qualmish has, of course, the finishing touch added when his gall-bladder and duodenum become distended with bile. I usually to these administer cocaine in an effervescing form.

I am, Sir, your obedient servant,

Regent's-park-road, May 10th, 1886. W. COODE ADAMS, M.B. Lond.

THE SANITARY CONDITION OF TONQUIN.

IN a work on Tonquin by Dr. Challan de Belval, Chief Medical Officer of the French Expedition, which has just been published in Paris, a considerable space is occupied by a description of the hygienic—or unhygienic—conditions of the country, which is stated to be damp and unhealthy. The houses are also insanitary, the clothing of the people insufficient, and their food "detestable," so that their low and debilitated condition is easily accounted for. Malaria is very frequent, and is met with in very grave forms, more often in woody and mountainous districts than in the delta. The most common and most fatal disease after malaria seems to be dysentery. The author saw many cases of abscess and hydatid of the liver. As to cholera, it may be said to be endemic, with frequent and severe epidemic exacerbations. Typhoid fever proved fatal to many of the French soldiers. Small-pox is very prevalent, and is said to kill more than half the children. Tuberculosis, scrofula, rheumatism, and leprosy are all common. Syphilis, however, is rare among the natives, except in the vicinity of great European centres. Notwithstanding all the hygienic disadvantages, the author believes that Tonquin will develop into a fine colony, decidedly superior to Cochin China.

Mr. William Tebb.—We regret that we cannot find space in THE LANCET for anti-vaccination arguments. Life is too short, and small-pox too real and near a risk.

A. B. had better apply to the registrar for the desired information.

"KISSING THE BOOK."

To the Editor of THE LANCET.

SIR,—Dr. Mowat can hardly be aware that the suggestion he has made is wholly impracticable, since it is the duty of the court usher, who administers the oath, to see that witnesses place the Testament against their lips; otherwise they are not sworn at all. It is the practice with many medical witnesses here to kiss the open book; and though this is, strictly speaking, a privilege of Royalty, I have never seen or heard of its being objected to. The mode of administering the oath in Scotland is much more solemn, as well as being free from this objectionable practice of kissing a book which, however sacred, is too often the reverse of clean. I believe that in the Channel Islands the oath is administered in a mode similar to that practised in Scotland, and I hope that we may live to see this method made uniform throughout the United Kingdom. It is somewhat unfortunate that this subject, solemn though it ought to be, is just one of those in which there is only one step from the sublime to the ridiculous. But if any Member of Parliament were to take up the matter, he would I am sure meet with both support and gratitude. The general adoption of the Scotch method would relieve many witnesses from any fear of infection—a fear which, I believe, is by no means chimerical; would be more of a solemnity and less of a farce than the present mode, and might also, in the case of many witnesses of the lower orders, cause a decrease in the crime of perjury.

I am, Sir, yours faithfully,

Liverpool, May 8th, 1886. FRED. W. LOWNDES.

HOSPITAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—I should be glad to have an expression of your opinion on the following case. I am house-surgeon of a provincial infirmary, and, according to the rules, am the head of the house. The matron is untrained, and her chief duties are those of a steward in a large London hospital. One morning recently I began my visit, and entered one of the female wards, where I found the matron. After waiting some time in the expectation that she would withdraw, I requested her with the utmost civility to leave the ward until I had made my round. This she flatly refused to do, and she continued to go from bed to bed until she had spoken to every patient, I meanwhile standing idle until she left the ward with an air of injured dignity amidst the titters of the patients. I have previously been resident at two large metropolitan hospitals, where the *trained* lady matrons always, as a matter of routine, left the wards the moment the house-surgeon entered them; and I would ask, as a matter of hospital etiquette, whether I was not justified in considering myself aggrieved in the above circumstances.

I am, Sir, yours faithfully,

May 11th, 1886. M.B. EDIN.

*** It is no part of the duties of the matron of a hospital to attend the house-surgeon in his rounds.—ED. L.

RINGWORM IN A NEW-BORN INFANT.

To the Editor of THE LANCET.

SIR,—In your issue of April 10th I notice a letter from "Surgeon," citing a case of ringworm in a new-born infant. On March 13th I attended a lady in her confinement, and it was found by the nurse that the child had a small ringworm, about as large as a threepenny piece, on the abdomen, just above the left groin. When my attention was directed to it some days afterwards it was as large as a shilling, and gradually increased until it had attained an area half as large again. Under treatment it is improving.

I am, Sir, yours truly,

April 30th, 1886. PHYSICIAN.

COPPER SALTS.

WRITING in a French Pharmaceutical journal, M. du Moulin states that sulphate of copper has been given by him to dogs in quantities of a drachm, and even more, without fatal results. Vomiting was produced; but after the lapse of some hours the animals appeared none the worse. The subacetate of copper also, which is commonly looked upon as a very poisonous substance, was given to dogs and rabbits daily in doses of from eight to fifteen grains for six weeks without causing any very serious results. The animals vomited for the first few days, but afterwards the tendency ceased and did not recur. The oxide and carbonate of copper have been administered to rabbits for a year without hindering growth. Compounds of copper with the fatty acids gave similar negative results. M. du Moulin has prescribed the sulphate of copper repeatedly in infantile sickness without producing any poisonous results.

A. W. L.—Tænia mediocanellata—the commonest form in this country—is derived from beef and (occasionally) mutton; tænia solium from pork. These two species are easily distinguishable.

HOODED GIG.

To the Editor of THE LANCET.

SIR,—In answer to a "Country Doctor," I may say I have used a hooded gig many years, and am now using a second. My experience is that the draught is much less than in a brougham. In meeting a strong wind the draught is felt at the back of the neck; and when it rains with a strong head wind, thorough protection from wet is not secured unless the head be brought well forward. I never have the hood up when driving against a strong head wind. I am, Sir, yours faithfully,

May 8th, 1886. M.D.

Surgeon.—We think—supposing that our correspondent's letter accurately represents the facts—that A and B have just cause to complain of the behaviour of C, who in courtesy ought to have made any complaints he had to make to A and B, the resident medical officers of the workhouse. We regret we have not space to insert the letter.

COTTAGE HOSPITALS.

To the Editor of THE LANCET.

SIR,—I am anxious to obtain the rules of cottage hospitals, and shall feel obliged by anyone sending them to me.

I am, Sir, yours faithfully,

Booking, Braintree, Essex, May 10th, 1886. THOS. TAYLOR, M.R.C.S.

ERRATUM.—In the annotation headed "A Chemical Analysis Desirable," page 867, "Sutherland" has been printed in error for *Litherland*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir William Mac Cormac, London; Mr. Charles Hawkins, London; Mr. Thos. Bryant, London; Mr. Gaunt, Alvechurch; Mr. Bowlby; Mr. Jessett, London; Mr. E. Ward, Leeds; Dr. A. M. Brown, London; Mr. Coode Adams, London; Dr. Cameron, Hendon; Dr. M. H. Tayler; Dr. R. Dawson; Dr. C. G. Monro, Penge; Mr. T. Ryan, London; Dr. Fenton Jones, London; Mr. C. S. Loch, London; Mr. Paulson, Loughborough; Mr. Ethelston; Dr. Edge, Manchester; Mr. Clarke; Mr. Bennett May, Birmingham; Mr. G. Fleming, London; Messrs. De Hoghton and Co.; Surg.-Major Hindley, Jeypore; Mrs. Dance; Dr. Fisher, Lytham; Mr. Berry, Wigan; Dr. Aahby, Manchester; Dr. Hale White, London; Mr. Howard, Torquay; Mr. Taylor, London; Dr. C. Williams, London; Messrs. Bell and Sons, London; Messrs. Trehearne and Co., London; Mr. Van Praagh, London; Dr. Adam, West Malling; Mr. Morgan, Cleveland; Mr. Buck, Clapham; Messrs. Mann and Co., London; Dr. Prieger, Kreuznach; Messrs. Holbrook and Son, Portsmouth; Messrs. Slinger and Sons, York; Messrs. Hunton and Co., Stockton-on-Tees; Mr. Andrews, Stockport; Dr. Beissill, Acheen; Mr. Northover, Finsbury; Mr. A. Tomes; Messrs. Isaacs and Co., London; Mr. A. B. Simpson, Birmingham; Messrs. Christy and Co., Fenchurch-street; Dr. Pasteur, London; Mr. Reginald Harrison, Liverpool; Dr. Sinclair, Dundee; Rev. H. Hawkins, Colney Hatch; Mr. Brembridge, London; Dr. Wyatt, London; Mr. Mayo Robson, Leeds; Mr. W. W. Jackman, Coggeshall; Messrs. Sumner and Co., Liverpool; Mr. T. Crewe; Mr. Shelly; Dr. Williams, Brynmeirig; Mr. Edwards, Harold; Mr. Smith, Kilburn; Messrs. Pegg and Co., London; Mr. Mellin, Peckham; Mrs. M'Lintock, Church Stretton; Dr. Wiglesworth, Liverpool; Messrs. Woolley and Sons, Manchester; Mr. Saunders, Manchester; Mr. Collins, Harrogate; Mr. P. Nees, London; Mr. T. Cooke, London; Messrs. Dixon and Sons, Sheffield; Dr. Suckling, Birmingham; Mr. Comyn, Exeter; Dr. Drury, Darlington; Mr. Rawlinson, Burnley; Messrs. Trübner and Co., London; Mr. Byrne, London; Dr. Henry, London; Mr. Backers, Chatham, U.S.A.; Mr. Leah, London; Dr. J. L. Andrew; Mr. H. Branwell, Newcastle-on-Tyne; Mr. Macleod, London; Country; M.D.; Vigilans, Bath; Medicus; L.R.C.P.; Surgeon; A Member prior to 1859; M.B. Edin.; Matron, Ryegate; Hope; M.D., Upper Edmonton; W. G., Hemel Hempsted; A. S. W., Kensington; P. W., Yarmouth.

LETTERS, *each with enclosure*, are also acknowledged from—Sir Henry Thompson; Dr. Black, Cronford; Dr. Sanders, Exminster; Rev. W. Lane, Belton; Mr. Shirley, Stoke-on-Trent; Mr. Robinson, Sunderland; Mr. Stenhouse, Glasgow; Mr. Leckie, Pontypridd; Mr. Fox, Birmingham; Mr. Sergeant, London; Mr. Paterson; Messrs. Leader and Sons, Sheffield; Dr. Duckworth, London; Messrs. Maythorn and Sons, Biggleswade; Mr. Brown, Westgate-on-Sea; Messrs. Keith and Co., Edinburgh; Mr. Mainwaring, Kensington; Messrs. Phillips and Co., Chester; Mr. Roxburgh, Weston-super-Mare; Mr. Palmer, Dublin; Mr. Armstrong, Manchester; Mr. Barton, Weston-super-Mare; Mr. Fyte, Minchinhampton; Messrs. Maclachlan and Co., Edinburgh; Dr. Eberle, Thirsk; Mr. Fuge, Taunton; Mr. Ellis, Scarboro'; Mr. Watson, Yarmouth; Mrs. Ernst, London; Dr. Collier, Great Yarmouth; Mr. Smalles, Grosmont; Mr. De Lutticheau, Ipswich; Dr. Hilly Bayswater; Mrs. Flyer, Gloucester; Mr. Beaman, Newton-le-Willows; Mrs. Thomson, Oldham; Messrs. Edmunds and Co., Walbrook; Mr. Rhodes, Manchester; Mr. Thomson, Luton; Mr. Kinder, Leicester; Mr. Davenport, London; Dr. Sinclair, Dundee; Dr. Mears, North Shields; Mr. Jeffrey, Eastbourne; Messrs. Cripps and Co., Hammersmith; Dr. Williams, Lincoln; Messrs. Porteous and Co., Glasgow; Dr. Howard, Orphen; Messrs. Parsons and Co., Addiscombe; Dr. Bradshaw, Banbury; Secretary, Highgate Hospital; Medical, Dronfield; Surgery, Ipswich; T. H. H., Corby; Medicus, Falmouth; G. W., Manchester; Surgeon; F.R.C.S., London; C. S., London; A. W., Whitby; Medicus, Nantwich; Lady Superintendent, Burton-on-Trent; E. D., Manchester; A. B., Walsall; N. P., Southport; A. N., Bournemouth; Veritas, Dublin; Fides, Dublin; Box, Uttoxeter; H. H., Southsea; J. M. R.; Gamma; M.R.C.S., Merthyr Tydvil; Omega, Brighton; M.D., Dulwich; Z. A., Clapton; F. N., Islington; Dispen.; W. W.; M. S.; P., Selby; C. A., Bristol; M.D., Kensington; R. A.; Tower.

Hull News, Hampshire County Times, Melbourne Argus, Hastings and St. Leonards Observer, Scottish News, Healthy Life, &c., have been received.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months £0 16 3
TO CHINA AND INDIA ..... One Year 1 16 10
TO THE CONTINENT, COLONIES, AND UNITED STATES ..... Ditto 1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications (seven lines and under) ...	£0 5 0
Official and General Announcements	0 5 0
Trade and Miscellaneous Advertisements	0 4 6
Every additional Line	0 0 6
Front Page ... ... per Line	0 1 0
Quarter Page	1 10 0
Half a Page	2 15 0
An entire Page	5 5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ARTIER, 66, Rue Caumartin, Paris.